

The Effectiveness of Learning Portfolios:  
A Study of Quality Assurance Programs of Selected Health Regulatory Colleges in  
Ontario

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## **Abstract**

Health regulatory colleges promote quality practice and continued competence through Quality Assurance (QA) programs. For many colleges, a QA program includes the use of portfolios that incorporate self-directed learning. The purpose of this study was to determine some of the issues surrounding the effectiveness of QA portfolio programs. The literature review revealed that portfolios are valuable tools, but gaps in knowledge include a comparative analysis of QA programs and the perspective of regulatory college administrators.

Data were collected through interviews with 6 administrators and a review of 14 portfolio models described on college websites. The results from the two data sources were applied to Robert Stake's responsive evaluation framework to identify issues related to the portfolio's effectiveness (Stake, 1967). The learning components of portfolios were analyzed through the humanist and constructivist lenses. All 14 portfolio models were found to have 3 main components: self-diagnosis, learning plan and activities, and self-evaluation. However, differences were uncovered in learners' autonomy in selecting learning activities, methods of portfolio evaluation, and the relationship between the portfolio and other QA components. The results revealed a dual philosophy of learning in portfolio models and an apparent contradiction between the needs of the individual learner and the organization. Paths for future research include the tenuous relationship between competence and learning, and the impact of technical approaches on self-directed learning initiatives. A key recommendation is to acknowledge the unique identity of each profession so that health regulatory colleges can address legislative demands and learner needs.

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## CHAPTER ONE: THE INQUIRY CONTEXT

This is a study of Quality Assurance (QA) portfolio programs of selected health regulatory colleges in the province of Ontario. The health care system in Ontario is a complex network where many practitioners interact with one another to provide high quality health services to the general public. Health regulatory colleges are a valuable component of the multilevel health care system, as colleges play an important role in confirming continued competence of health care professionals. A health regulatory college is a governing body that implements the legislation through regulatory activities to protect the public interest (Shimberg, 2000). Specifically, health regulatory colleges in Ontario ensure that health care professionals meet both training and educational qualifications and, at the same time, establish standards for both member conduct and practice. Equally important, health regulatory colleges also develop programs to help members continually improve skills and knowledge (Federation of Health Regulatory Colleges of Ontario, 2006).

In Ontario, the *Regulated Health Professions Act, 1991* (RHPA) and companion legislation were established to provide the framework for regulating most health care professions throughout the province (Bohnen, 1994). Currently, there are 22 health regulatory colleges in the province of Ontario, including nursing, dental hygiene, medical radiation technology, massage therapy, and pharmacy, to name a few (Federation of Health Regulatory Colleges, 2009).<sup>1</sup> A complete listing of health regulatory colleges in Ontario is located in Appendix A.

Although health regulatory colleges were initially created to protect the public, they were also designed to play an essential role in supporting health care members to

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<sup>1</sup> At the time this study was conducted there were 21 health regulatory colleges in the province of Ontario.



expand their ability to continually provide the quality care required in a demanding system (Bohnen, 1994). As a result, an essential component of the *Regulated Health Professions Act* is the mandate of health regulatory colleges to set quality assurance (QA) programs. Although many colleges utilize different terms and processes, all QA programs focus on advancing quality practice and promoting continued competence of health care professionals in Ontario (Regulated Health Professions Act, 1991). The development of assessment methods that ensure all practitioners in a health profession are competent poses a significant challenge for health regulatory colleges, but these procedures are essential to the fulfillment of their mandate of public protection. It is important to recognize that the legislation that guided the development of QA programs has also helped with their success. By positioning QA programs as an educational activity, it was possible for health regulatory colleges to create programs acknowledging the balance between the needs of the public while valuing professional self-regulation and professional development (Austin, Croteau, Marini, & Violato, 2003).

The success and effectiveness of QA programs require full participation and buy-in from the members, reinforcing the need to create programs that support and encourage adult learning (Austin et al., 2003). An example of establishing support among health care professionals is evident in the case of developing the QA program at the Ontario College of Pharmacists (OCP). In an effort to balance the twin needs of professional self-regulation and public accountability, the OCP engaged in a consultative process in the beginning stages of QA program development with both members and the public. The inquiry process involved various stakeholders and helped to alleviate any misgivings that members had about the program. An additional key factor to QA program success is

ensuring that all aspects of the process are valid and have undergone some form of assessment from an external source.

As a result of the need for both meaningful adult learning and mandatory participation, many of the QA programs in the province of Ontario were created around adult education theory and practice, with particular attention to self-directed learning and self-assessment (Austin, Marini, & Desroches, 2005). One of the more common instruments for promoting self-directed learning and self-assessment is the learning portfolio, a characteristic of many QA programs in health professions. The monitoring and evaluation of QA programs play an important role in meeting the overall goal of these mandated learning initiatives. The College of Nurses of Ontario (CNO) conducted an audit of the Reflective Practice component of its QA program to validate member participation and obtain feedback from the membership on the benefits and effectiveness of completing a portfolio (Ontario, 2001). The report, conducted by the CNO in 2000, concluded that 69.8% of members believe that the Reflective Practice component of the QA program is effective in enhancing the quality of practice. At the same time, 85.7% reported that developing a learning plan helped to improve practice areas such as the application of new knowledge and a change in the delivery of care to patients (CNO). Consequently, this study focused on the monitoring and evaluation aspects of QA portfolio programs, since they are valuable resources in determining the issues surrounding the effectiveness of QA programs of health regulatory colleges (Austin, Marini, Macleod Glover, & Croteau, 2005).

## Background of the Problem

Learning is an essential activity of portfolio programs and is a process that takes place when humans interact with one another in associations, organizations, and community settings (Thomas, 1998). Lifelong and continuous learning are terms that are often used interchangeably, when in actuality they have different meanings, especially when used in the context of QA programs of health regulatory colleges in Ontario. As described by Austin, Marini, Macleod Glover et al., (2005), lifelong learning includes all learning that takes place in an individual's life. Thomas contributes to this concept by suggesting that lifelong learning is a shift of focus from education to learning in that it is highly responsive to the external environment. In contrast, continuous learning or education refers to organized activities or experiences that an individual engages in after entry-to-practice education and training, to promote continuous knowledge and proficiency within a profession (Austin, Marini, Macleod Glover et al.). Merriam and Caffarella (1999) categorize learning as being formal, nonformal, or informal. By definition, formal learning takes place in educational institutions and results in the acquisition of credits, degrees, or diplomas. In contrast, nonformal learning is characterized as organized activities that occur outside of educational institutions, while informal learning is the collection of everyday experiences that result in an individual learning something of interest. Consequently, the reference to learning in the context of QA programs is more closely linked to continuous learning, both formal and nonformal, within health care professionals' lifelong learning experiences. Although other definitions of learning may exist, this study is using the definitions as presented by Merriam and Caffarella.

To maintain certification, professionals are expected to maintain and demonstrate continued competence during the lifespan of their careers in order to help ensure that the public they serve receive effective, efficient, and safe services (Austin, Marini, Croteau, & Violato, 2004). Accountability of professionals and specifically health care workers is an ongoing concern in modern society (Austin et al., 2004). The challenge of assuring accountability becomes evident when developing a method for assessing continued competence. Primarily, a professional's practice changes and evolves with time, and therefore assessment may become a challenge as the skill set broadens beyond the entry-to-practice requirements. Further, the process of evaluating one's continued competence raises some concerns because technology, evidence-based practice, and medical sciences are advancing rapidly, thereby decreasing the amount of time a knowledge base is current. Meeting the challenge of maintaining and evaluating quality practice and continued competence in light of constant change becomes an important element of QA programs (Cary & Smolenski, 2005).

The concept of competence is complex and difficult to articulate because it is expressed in a variety of ways by diverse professions (Campbell & Mackay, 2001). Competence is defined as the "state of being competent; adequacy; sufficiency; property or means of subsistence sufficient to furnish the necessities and conveniences of life" (*The living Webster encyclopedic dictionary of the English language*, 1972, p. 206). Within the health care community, there are three common ideas that appear among the definitions of competence. These include: (a) the ability to practice in a specific role, (b) the influence of the practice environment, and (c) the combination of knowledge, skills, judgments, and abilities (Campbell & Mackay). QA programs have been created to

promote continued competence as defined by each profession. As the concept of competence is diverse, models for assessing competence and continued competence can be debated even within a specific profession (Austin et. al, 2004). Therefore, this study does not focus on one definition of competence. Also, because this study encompasses the range of health regulatory colleges, I will not use any profession's specific outcomes as a standard for the definition of competency. One major obstacle to defining competence is that it is usually used to judge whether professionals can continue to be considered members of a given profession, and thus entails legal and political consequences.

Assessment in general tends to evoke anxiety among practicing professionals, especially when the assessment is tied so closely to their livelihood. As a result, continued-competence assessments may be met with resistance and apprehension on the part of health care professionals (Austin et al., 2004). There are several methods available for evaluating an individual's continued competence. The available methods of assessing competence include testing, continuing education contact hours, performance-based evaluations, case studies, and finally the portfolio approach (Cary & Smolenski, 2005). The range in styles of competency-based evaluation tools has continued to be debated, for it is difficult to create a balance between the public's needs and expectations and the needs of the individual professional (Austin et al.). As a result, determining the approach to quality assurance that best serves the needs of advancing continued competence for the public while providing learning opportunities that are meaningful to the members becomes a difficult task for regulatory bodies.

The concept of quality assurance programs resembles a scale with two elements: the complexity of quality assurance and the diverse needs of the individual learner. The role of regulatory colleges is to create a balance between these two objectives. This study addresses issues related to the portfolio approach used by regulatory college administrators to ensure meaningful learning opportunities for members while promoting quality practice and continued competence.

Although the RHPA has mandated that each health regulatory college in Ontario create and maintain a QA program, no exemplar or ideal model has been created to establish how the programs are to be designed and implemented. However, the Ministry of Health and Long-Term Care has developed guidelines and principles to inform the conceptualization of QA programming. The purpose of QA programs is not only to raise the quality of health care provided in Ontario but also to improve patient outcomes (Health Professions Regulatory Advisory Council [HPRAC], 2000). In addition, the Ministry has suggested a three-component QA program including a remediation component to address incompetence, a component to ensure maintenance and improvement of an individual member's competence, and, finally, a component to raise professional performance through focusing on patient outcomes (HPRAC).

As a result of the Ministry's broad program parameters, each regulatory college has created its own QA program based on individual interpretation of the legislation. While many of the QA programs use continuous learning portfolios, some health regulatory colleges have initiated mandatory examinations as a method of testing a health care professional's continued competence (College of Respiratory Therapists of Ontario, 2003). The range of QA programming and evaluation allows for the implementation of

different philosophies of learning, suggesting that health regulatory colleges in Ontario may not have a singular philosophy of adult learning. Since there is no universal QA program for health care professionals in Ontario, there is ultimately no guarantee that the QA program created by each profession will provide meaningful learning for members of its regulatory college. On the whole, meeting the challenge of balancing standards with membership needs may ensure the success of a QA program. However, the question remains: Can true equilibrium ever be attained?

It is essential to note that the Health Professions Regulatory Advisory Council had a mandate to report on QA programs within 5 years of the enactment of the RHPA. The enactment of the RHPA was December 31, 1993. Accordingly, HPRAC released a report to the Minister of Health and Long-Term Care in October 2000 and made several recommendations regarding the effectiveness of QA programs under broad categories such as status and innovative approaches, program component development, and QA program evaluation. Specifically, HPRAC's analysis and recommendations regarding innovative approaches suggested that colleges share information regarding QA initiatives with one another to increase college accountability and strengthen the relationship of trust with the public of Ontario (HPRAC, 2000). Moreover, the recommendations outlined a need for colleges to continually evaluate QA programs to assess effectiveness and determine if modifications are required in order for the programs to maximize their potential. The framework identified useful performance indicators to evaluate the effectiveness of QA programs such as percentage of members complying with program requirements, percentage of members for whom remediation is required, and overall patient satisfaction (HPRAC). This study is a partial response to HPRAC's

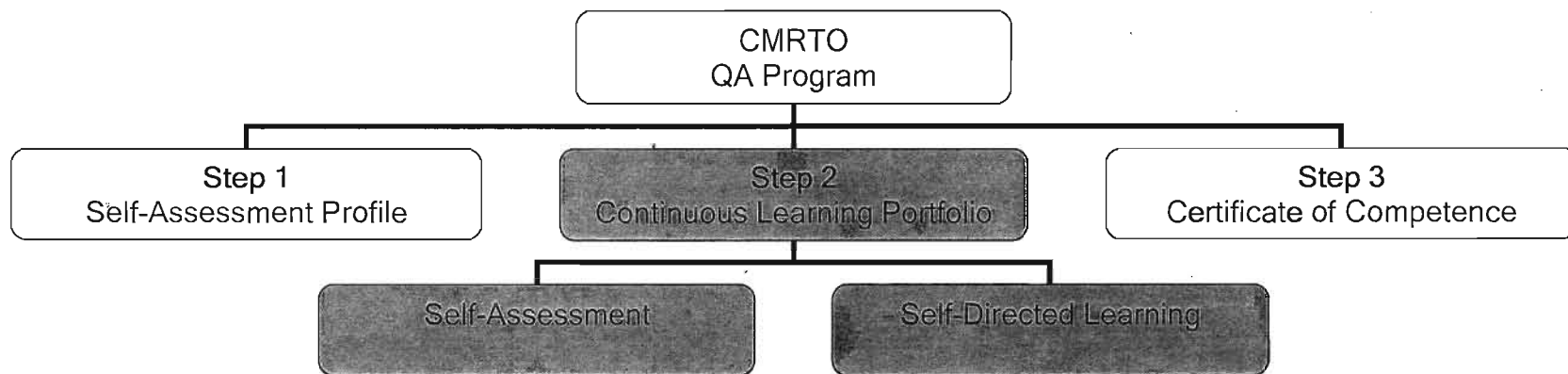
recommendation, in that its purpose is to examine one aspect of QA programs, the learning portfolios, and share the results through this thesis.

### Problem Context

My first exposure to the concept of lifelong or continuous learning occurred in my current employment at a health regulatory college. During one of the initial orientation sessions, I was introduced to the Quality Assurance (QA) Program. I recall that I became interested in the idea that education was continuous, could occur anywhere and at any time using various methods, but more important, that it was self-directed and could be unique to each of the members. The ideas that were presented to me on that day contributed to my initial interest in the field of adult education and the possibilities of continuous and lifelong learning. After that initial orientation session, I started to review programs from other health regulatory colleges. The background for this study has focused on the QA program of the CMRTO for it is the program that has shaped my interest in the creation, maintenance, and evaluation of QA programs of Ontario health regulatory colleges. Figure 1 represents one example of a health regulatory college QA program in the province of Ontario. The shaded sections of the concept map represent the portfolio component of the QA program that is the focus of this study.

The QA portfolio at the College of Medical Radiation Technologists of Ontario is separated into three components: the Self-Assessment Profile, the Continuous Learning Portfolio, and the Certificate of Competence. The Self-Assessment Profile is a tool that helps members identify and summarize their strengths while providing opportunities to enhance skills, knowledge, and their abilities to perform as medical radiation technologists. The Self-Assessment Profile provides the members with a means to





*Figure 1.* Concept map of CMRTO quality assurance (QA) program.

review their individual performance against the Standards of Practice established by the College (CMRTO, 2003). Further, through the process of reflecting upon their role and function in the practice of the profession, members are provided with the opportunity to determine their individual learning interests and needs, and at the same time anticipate their future requirements as health care professionals in the province of Ontario.

After members complete the Self-Assessment Profile, the next step of the QA Program is the Continuous Learning Portfolio (CMRTO, 2003). The Portfolio is a tool for members to document the formal and informal professional learning activities<sup>2</sup> they will participate in to meet individual learning goals. Learning activities can include professional readings, professional development, and learning from experts. The professional readings include books, articles, or research papers that are related to the profession. Professional development consists of attendance at seminars, conferences, or training courses, while learning from experts includes attendance at round-table discussions, tutorials, or learning from multimedia technology, CDs, videos, or the internet. Equally important, the members are required to define how the learning resulting from these activities helps them in their workplace and the professional environment of medical radiation technology (CMRTO).

The final component of the College's QA Program is the Certificate of Competence comprised of two reflective questions that the members are required to answer on the annual Application for Renewal of Registration form. The Certificate of Competence provides members with an opportunity to reflect upon their continuous learning for the year and determine whether they are complying with the QA

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<sup>2</sup> The use of the terms formal and informal learning activities in CMRTO documents may not correspond to current adult education literature. These terms were explored previously in this chapter.

requirements as members in their regulated health care community (CMRTO, 2003). Similar programs have been designed by the health regulatory colleges in Ontario for nursing, respiratory therapy, pharmacy, and dental hygiene, to name a few (College of Dental Hygienists of Ontario, n.d.; College of Respiratory Therapists of Ontario, n.d.; Croteau, Austin, & Marini, 2002; Mackay & Risk, 2001).

The study of Quality Assurance programs conducted by the Health Professions Regulatory Advisory Council determined that a comprehensive assessment of the effectiveness of QA programs could not be conducted at the time of publication because college QA programs had not been fully implemented and their evaluations had not been planned or carried out (HPRAC, 2000). A study of pharmacists in Ontario and their perceptions of the portfolio component of the QA program addresses some of the issues surrounding the use and effectiveness of portfolios (Austin, Marini, & Desroches, 2005). While both of the studies establish some of the issues related to the use of portfolios and the effectiveness for professional development, neither addresses the college administrators' perceptions or the challenges associated with creating and maintaining portfolio programs that balance regulatory requirements and promote continued learning.

An essential component of this research study was to determine how some health regulatory colleges design, maintain, and evaluate the current QA portfolio programs and to understand the philosophy of adult learning that has provided the basis for program design and development. In order to maintain and evaluate QA programs, many health regulatory colleges complete a random selection process once a year in which members are asked to present their QA portfolios for assessment by the College's QA Committee. The selection process raises the question of how the programs can be assessed for

effectiveness when only a percentage of records are evaluated each year. The narrow selection process suggests that health regulatory colleges may not be providing themselves with the tools required to assess the success of the programs and in turn implement the necessary changes or adjustments to their QA programs.

As in several health regulatory colleges in Ontario, the College of Medical Radiation Technologists of Ontario randomly selects members who are asked to submit a Self-Assessment Profile, Continuous-Learning Portfolio, and related records to the QA Committee for review. It is important to note that the QA Committee does not judge what each member has learned or the methods adopted to acquire knowledge or skills. Rather, the QA Committee's task is to analyze the member's ability to follow the guidelines of the QA Program and to ensure that the continuous learning workbook is being used correctly according to its design (CMRTO, 2003). Most health regulatory colleges such as pharmacy and dental hygiene follow the same random selection on an annual basis. Some make the selection according to predetermined criteria, including demographic considerations, to ensure that a representative sample is attained (CDHO, n.d.; Croteau et al., 2002).

The random selection approach used by health regulatory colleges to ensure that regulated health professionals are actively engaging in QA programs as prescribed by the legislative requirements raises many questions. In this approach, the QA Committees are evaluating only one facet of the QA mandate, that is, whether the member has complied or failed to comply with the requirements of the QA programs. What the QA Committee does not do, however, is look at the multiple perspectives of the learning process. The Committee does not assess members' ability to continue to be self-directed in their

learning initiatives or their accuracy in diagnosing their learning needs. This particular issue of assessment of professional learning and evaluation of the QA process needs consideration in order to gain an understanding of how the various colleges can measure both QA program compliance and active engagement.

Health regulatory college administrators represent a unique perspective when exploring the issues surrounding the effectiveness of portfolios of QA programs. The administrators are responsible for carrying out the everyday operations of the regulatory colleges and are therefore often balancing regulatory requirements of government while addressing the needs and queries of the members as related to college programs. Therefore, I believe that health regulatory college administrators are more likely to have a holistic perspective of the QA programs as they liaise with members, council, government, and other college administrators. Moreover, many regulatory college administrators are health care professionals and accordingly are required to complete the same QA requirements that they manage on a daily basis.

It would be interesting to ascertain how the HPRAC's recommendations released in October 2000 have impacted QA program development in health regulatory colleges. For example, were any of the HPRAC's suggestions adopted by health regulatory colleges, and if so, have the recommendations helped to evaluate the effectiveness of QA programming?

### Purpose of the Study

The purpose of this study was to determine some of the issues surrounding the effectiveness of the portfolio component of QA programs of health regulatory colleges in Ontario as a means to promote quality practice and continued competence. To do this,

this assessment is based on the data collected from health regulatory college administrators in combination with a review of some of the portfolio models currently being used by health care professionals.

### Questions to Be Answered

In order to determine the effectiveness of learning portfolios to promote quality practice and continued competence of health care professionals in Ontario, this study examined the development, maintenance, and evaluation of QA portfolio programs from the perspective of administrators in health regulatory colleges. As many portfolio programs are based in self-directed learning and self-assessment initiatives, it is essential to address these components to answer the general research question. The research question will be addressed through the examination of the following specific questions:

1. What challenges do health regulatory college administrators face in trying to balance the goals of the individual learner with the goals of QA portfolio programs? What strategies do they use in order to meet these challenges?
2. What guiding principles were considered in establishing QA portfolio programs of the selected health regulatory colleges in Ontario?
3. What evaluation and maintenance measures do selected health regulatory colleges in Ontario use to assess the overall effectiveness of instituted QA portfolio programs?
4. How do the selected health regulatory colleges identify and respond to the learning needs of health care professionals?

5. How do the selected health regulatory colleges assist members with self-directed learning initiatives and self-assessment if members encounter difficulties?
6. How do health regulatory college administrators ensure that members comply with and actively engage in QA portfolio programs?

#### Importance of the Study

Although the instituted QA programs have different names, they all seek the objective of ensuring the continued competence of professionals. This research question is significant because it looks at the development and implementation of the mandatory QA portfolio programs used to advance the competent practice of health care professionals in the province of Ontario. This study has theoretical importance in the field of adult education as it focuses on the use of self-directed learning and learning portfolios in a mandatory environment. This study would be of particular interest to administrators of health care professionals but could also be beneficial to regulators of other professions that require mandatory continuous learning initiatives for annual certification of professional licenses. In addition, the results of this study may be valuable to new health care professions that are undergoing the process of becoming regulated in Ontario. At the same time, this particular study could be an asset to health regulatory colleges that have encountered difficulty in creating and implementing successful QA programs, as this study not only describes the creation and implementation of mandatory learning in some regulatory colleges but also includes how some colleges have continued to develop and evaluate QA programming as a measure of maintenance to meet the learning needs of members.

The role of the Health Professions Regulatory Advisory Council (HPRAC) in relationship to Quality Assurance (QA) programs is another crucial element that establishes the importance of this research question. The mandate of HPRAC is to provide independent policy advice to the Minister of Health and Long-Term Care on matters related to regulated health professions in Ontario (HPRAC, 2006). In particular, HPRAC's statutory obligation is to advise the Minister on several issues including QA programs. The Report from HPRAC to the Ministry of Health and Long-Term Care regarding the effectiveness of QA programs of health regulatory colleges in Ontario echoes and validates many of the questions of this research study, reinforcing the questions and concerns that surround QA programs.

#### Rationale

This study is important because it focuses on the issues surrounding the effectiveness of the learning portfolio component of QA programs of health regulatory colleges in Ontario as a means to promote quality practice and continued competence. Previous studies conducted on QA programs have been related to the perceptions of either the Ministry of Health and Long-Term Care or individual health professionals. This study provides the unique perspective of the health regulatory college administrators who manage QA programs on an ongoing basis in combination with a review of portfolios currently used by health professionals in the province. After answering this research question of the effectiveness of self-directed learning and self-assessment in portfolios of QA programs from the administrators' perspective, this study could form the basis of future studies on the evaluation of QA programs from the perspective of health care professionals, and correlate findings in order to contribute to a better understanding



of lifelong learning among health care professionals in Ontario. This study is also important because of the application of self-directed learning and the use of portfolios within workplace environments. The examination of self-directed learning and self-assessment in this study provides current empirical data to take a fresh look at learning theories on self-directed learning that were established in the field of adult education in the 1960s and 1970s.

### Theoretical Framework

This study is framed by the application of Robert Stake's responsive evaluation model. Stake's model provides the general framework required in program evaluation and establishes the need to distinguish between descriptions and judgments through an examination of antecedents, interactions, and outcomes. The description matrix consists of both intents and observations that guided the data collected from the document review and the interviews. On the other hand, the judgment matrix consists of both standards and judgments inherent in the evaluation of a program. The theoretical frameworks of humanism and constructivism formulate the *standards* against which I evaluated the impact of self-directed learning and self-assessment in the portfolio models of QA programs. The *judgments* are based on the results of my study of the issues surrounding the effectiveness of QA portfolio programs as a means to promote quality practice and continued competence.

### Scope and Limitations of the Study

This study addressed only the use of self-directed and self-assessed learning activities included in learning portfolios as part of continuing education and did not examine clinical components of QA programs in health regulatory colleges. The clinical

component was excluded from the study to ensure that the research was focused on continuous learning portfolios for the individual health care professional. In contrast to portfolios, practice assessments of QA programming include other stakeholders such as patients, colleagues, and staff members. For example, such practice assessments involve the use of peer and patient assessment, whereas the boundaries of this inquiry of portfolios are in self-assessment and the use of self-directed learning for professional development. The clinical aspect of QA programs has been excluded from this study because each health profession has specific procedures, practices, and working environments. By limiting the examination of QA programs to the portfolio or workbook component, the study establishes a commonality amongst health care professions.

It is also important to note that the scope of this study was confined to regulated health care professions in the province of Ontario and did not examine QA programs used by comparable organizations throughout Canada or other countries. As health care in Canada is governed by provincial jurisdiction, it is logical to focus the study in Ontario because, in fact, other Canadian provinces and territories do not have identical legislation. Moreover, health regulatory colleges in other provinces or territories do not necessarily govern the same health care professions. However, some provinces throughout Canada may be moving towards instituting a regulatory environment and may benefit from guidance or direction in establishing mandatory programs of continuous learning in order to meet quality assurance requirements.

Finally, it is important to recognize that this study examined the use of QA programs of only some Ontario health regulatory colleges. Although there are currently 22 health regulatory colleges in the province, I have chosen to examine 14 portfolio

models because these colleges use a portfolio and they were available on the websites. It is important to recognize that not all QA programs include a portfolio component and not all colleges with a portfolio component are available on the organizations' websites. This study is from the point of view of only college administrators and did not examine the perspective of health care professionals who adhere to the regulatory requirements.

Therefore, this study did not address how members perceive the QA program or their experiences when completing the mandated continuous learning activities. Equally important, this study does not include how QA programs are perceived by the Ministry of Health and Long-Term Care and how the QA programs meet the legislative expectations that were originally outlined in the Regulated Health Professions Act, 1991.

#### Outline of Remainder of the Document

The remainder of the document is divided into four separate components that combine to form the study of portfolio QA programs of some health regulatory colleges in Ontario. In order to determine the effectiveness of the portfolio component of QA programs, this study used both a document review and interviews with health regulatory college administrators to provide a unique perspective on QA portfolio programs.

Chapter Two: Review of Related Literature offers an examination of selected perspectives on adult education including humanism and constructivism and Robert Stake's responsive program evaluation model. Quality assurance as a management style is discussed in addition to the definitions of quality, quality assurance, and the historical evolution of Total Quality Management (TQM). A review of self-directed learning and self-assessment is outlined, and the implications of self-directed learning initiatives on a professional's career are also described through the protean career model. A summary of

learning principles that guide QA programs, compliance, and active engagement in mandatory learning is also included. Finally, this chapter explores types of portfolios and their use and effectiveness in professional development.

Chapter Three: Methodology and Procedures is the section of the study that defines the process and procedures adopted to collect and analyze the data for the document review of portfolios of QA programs as well as the interviews with QA program administrators of the selected health regulatory colleges. This chapter explains the decision to use qualitative methods, and it outlines the sample, data collection instrument, and data collection for the document review portion of this study. In addition, this chapter provides details regarding the participant selection, recruitment procedures, and a profile of the participants selected for the interviews. The data collection instrument is also examined, with a description of the data collection and data analysis procedures. Finally, I address ethical considerations, credibility, and the limitations of the methods used for this study.

Chapter Four: Presentation of Results describes the results of the document review and the six interviews. The findings from the document review are presented according to (a) portfolio design, (b) types of learning and assessment in portfolios, (c) portfolio evaluation and member support, and (d) additional observations. The results from the interviews with college administrators are presented under the categories of (a) portfolio design, (b) types of learning and assessment, (c) other QA components, (d) portfolio evaluation and program maintenance, (e) benefits and challenges, (f) learning needs, (g) organizational needs, and (h) relationship between competence and learning. This chapter also provides an application of the results from both the document review and

interviews with college administrators to the description matrix of Robert Stake's responsive evaluation model.

Chapter Five: Summary, Discussion, and Implications provides a summary of the study and a discussion of the effectiveness of QA portfolio programs through an application of the literature review and study results to the judgment matrix of Robert Stake's responsive evaluation model. In addition, the chapter outlines how the investigation contributes to the body of knowledge already available on the use of self-directed learning initiatives in a workplace setting. Finally, the implications for practice of health regulatory colleges are offered, with consideration given to how additional research would establish a deeper understanding of the effectiveness of portfolios as a means to promote quality practice and continued competence.

## CHAPTER TWO: REVIEW OF RELATED LITERATURE

The review of related literature for this study of Quality Assurance (QA) portfolio programs in health regulatory colleges begins by outlining the theory of self-directed learning and self-assessment in the field of adult education. The link between self-directed learning, self-assessment, and portfolios is applied in the context of QA program design, maintenance, and evaluation through an examination of adult education theory and other studies of QA programs. The theoretical frameworks that support this research study are humanism, constructivism, and Robert's Stake's responsive evaluation model. A summary of each perspective is presented in order to establish the characteristics of the frameworks in isolation and then, more important, to highlight how the three perspectives connect to create a lens that will frame the review of literature and the research study as a whole.

### Selected Perspectives on Adult Education

Humanism and constructivism are two perspectives on adult education that support this examination of QA programs in health regulatory colleges. The portfolio models seek to foster learning that is self-directed and construct meaning from experience, an approach that is congruent with humanist and constructivist thought. These two perspectives form the criteria for the effectiveness of the learning experience used in the analysis portion of this study.

#### *Humanism*

The humanist theoretical perspective is appropriate for a study of QA programs of health regulatory colleges, because these programs are completed by health care professionals on an individual basis and are concerned with the knowledge base of an

individual in the broader health care system. Further, the application of the humanist perspective is appropriate for this research study since self-directed learning and self-assessment initiatives allow the learner to connect with the subject matter on a personal level and acknowledge that each individual is unique and interested in different aspects of learning as related to his or her profession.

As described by Plumb and Welton (2001), the humanist paradigm centers around the belief that adults in society wish to create harmonious relationships with others and that individual actions are guided by valuing the importance of mutual understanding. The authors contend that humanism is often associated with the Romantic Movement and the concept that humans are able to express their full potential in all aspects of their lives. They also suggest that the humanist perspective is most visible in the autonomy of an adult learner and emphasize the need for adult education practices to be ethical and just. From within the humanist orientation, behaviours are perceived to be a consequence of individual choice, and humans are viewed as having a great potential for growth (Merriam & Caffarella, 1999). The presence of humanism in adult education is demonstrated in self-directed learning models, individualized learning, learner-centered curriculum, and the ideas of Rogers and Knowles, who consider it moral to regard adults as autonomous and responsible beings in society (Merriam & Caffarella, 1999; Plumb & Welton; Scott, 1998). This humanistic orientation is “focused on the dignity and autonomy of human beings” (Draper, 2001, p. 17). However, the humanist lens is often criticized for not focusing on learning that requires technical criteria and for failing to point out structures of power as well as who in society will ultimately benefit from adult education activities (Plumb & Welton).

MacKeracher (1996) refines the concept of humanism through a discussion of the learning objectives and facilitation strategies associated with this particular lens on teaching adults. She contends that humanist models focus on the whole person and that the objectives of learning help learners to create personal meaning and values and subsequently develop a positive concept of self. Adult educators with the humanist point of view assume that humans have a natural capacity for learning and that the process of education is controlled by the individual learner rather than a facilitator or teacher (MacKeracher). Although the process of learning is managed by the learner, there is still a need for the role of a facilitator, although often through indirect assistance. For example, the types of support may include clarifying and identifying needs and objectives, while being a flexible resource readily available to the learner. In Pratt's (1998) typology of teaching perspectives in adult education, the humanist approach is called the nurturing perspective. The connection between the learner and the facilitator is characterized by trust, respect, and assistance to learners throughout the process. While providing an environment for respectful learning, the facilitator has expectations of the learner that are both achievable and meaningful. When the educator provides the conditions whereby significant learning can occur, learners are willing to explore risks, new ideas, and even confront problems that may inhibit their own learning processes (Magro, 2001). On the whole, this intricate relationship between the learner and the facilitator is described as caring and challenging (Pratt).

One of the defining aspects of the humanist perspective centers on the values and attributes of the learner. According to MacKeracher (1996), the learner is viewed as a unique individual who deserves respect and acceptance. Pratt (1998) extends the



understanding of this concept by suggesting that the goal of learning is to help adults increase confidence in their ability to learn and to foster self-sufficiency when approaching new learning opportunities. In order to establish this level of confidence, the learner must have the ability to attribute success to his or her own individual knowledge and expertise. The learner must be able to relate to the knowledge on a personal level, and the knowledge must engage the learner's individual feelings (Scott, 1998). Humanist models of learning can lead to attitude changes for the learner, especially in the areas of self-concept and self-esteem (MacKeracher). An essential component of learning is based on the assumption that learning involves the whole person and that the most beneficial type of learning for the development of the self is for adults to learn how to learn. In essence, the individual's desire is to achieve self-actualization and realize his or her full potential (Magro, 2001). Draper (2001) echoes these notions and contends that the humanistic philosophy has developed the holistic view of people in society.

### *Constructivism*

The conceptual framework of constructivism also supports this study of QA portfolios, as constructivism directly relates to building bridges between past and present learning experiences (Magro, 2001). In particular, portfolios provide a collection of learning experiences that help to link individual experiences to learning goals.

Constructivist thought "maintains that learning is a process of constructing meaning; it is how people make sense of their experience" (Merriam & Caffarella, 1999, p. 261). The authors suggest that learning from a constructivist perspective can be either an internal and individual cognitive activity or can be constructed socially with others. For the purposes of this study, both views of constructivism were utilized in order to gain insight

into selected QA portfolio programs. The ontology of constructivism is based on the understanding that individuals identify with the world around them, by continually constructing theories about both individual and collective experiences that are used to both predict and control subsequent experiences (Magro; Scott, 1998). The constructivist framework is based on “multiple local and specific ‘constructed’ realities” (Healey & Perry, 2000, p. 19). Individuals reorganize occurrences in order to decipher new information gathered from the environment around them and subsequently build bridges between new ideas and knowledge acquired through past experiences (Magro). The concept of building bridges of knowledge is fundamental to the understanding of continuous learning activities in QA programs, because this notion establishes the necessary connection between competencies attained in educational training and the continuous acquisition of knowledge and skills for professional performance.

Although Scott (1998) uses the term progressivism to describe a philosophical orientation that views the acquisition of knowledge as the liberation of the individual for the improvement of society, it has comparable attributes to the beliefs of the constructivist conceptual framework. She proposes that from within this perspective, truth is not generated by academic or scientific knowledge but rather is socially constructed in society and directly correlates to the interests of both individuals and groups in society. The constructivist perspective acknowledges that a balanced view of society represents multiple views instead of a singular perspective (Emes & Cleveland-Innes, 2003). The concept is further explained by Healey and Perry (2000), who describe the epistemology of constructivism as a particular belief system that is held in a specific environment. This aspect of the constructivist framework is appropriate to a study of QA

programs of health regulatory colleges, for it allows for various truths to be explored based on what is relevant in a specific health care profession or facility at a particular point in time.

Finally, in order to establish a better understanding of constructivism, it is crucial to discuss the axiology or values of a constructivist conceptual framework. According to Magro (2001), a key element of constructivism is the importance of the individual learner's outlook and an understanding of the multiple ways in which individuals can perceive or interpret the environment around them. She maintains that if educators acknowledge that multiple interpretations exist, a greater appreciation of learning approaches is recognized, thereby providing a valuable tool when considering continuous learning for professional competence. The constructivist position values learning through problem solving and personal reflection over the acquisition of facts and subject matter (Scott, 1998). The conceptual framework provided by constructivism lends itself to this study for two reasons. First, problem-solving and reflection on practice are highly valued in health professions as ways of learning. Second, this framework will help to construct an understanding of the phenomenon based on the administrators' perspective on QA portfolio models.

#### Program Evaluation: Stake's Responsive Evaluation Model

The humanist and constructivist theoretical frameworks identify the needs and characteristics of the learner in conjunction with the creation of knowledge within a learning context. These two conceptual frameworks assisted in evaluating the effectiveness of the portfolio component of health regulatory colleges' QA programs in order to ensure that the needs of the individual learner are met. However, given that the

research is situated in the context of QA programs, it is important to refer to a program evaluation model. The purpose of adding a program evaluation model to the overall conceptual framework was to ensure that the perspective guiding the study included issues of program design, development, and maintenance rather than simply the needs and characteristics of the learners engaged in the mandatory continuous learning activities. The model was used to analyze the data and to evaluate the effectiveness of the portfolio component of QA programs in some colleges.

Robert Stake's responsive or issues-centered program evaluation model provides a valuable tool to study portfolios. Stake's responsive evaluation model was created as a result of his belief that traditional evaluation models are too narrow in design and thus fail to acknowledge the intended and unintended difference between how curriculum functions in practice and the external judgments made about the curriculum (Kemmis & Stake, 1988). Evaluation in education is considered responsive if attention is paid to program activities, stakeholder requirements for information are satisfied, and if differing values and perspectives are acknowledged in reporting a program's success or failure (Stake, 1975). As described by Kemmis and Stake, issues-centered evaluation allows the researcher to explore a program through different participants and observers, thus leading to alternative views that may be useful in both the interpretation and development of programs. Robert Stake's responsive evaluation model is derived from a naturalist paradigm and places importance on understanding both people and programs in a particular context (Curran, Christopher, Lemire, Collins, & Barrett, 2003).

Responsive evaluation allows for the clarification of multiple perspectives that are often the source of conflict, concerns, or contextual complexities among the various

stakeholders. The perspectives are represented as *concerns* or *issues* and become the basis for creating *standards* whereby a program can be evaluated. Stake (1975) uses the term issues to reflect a sense of complexity and urgency. Consequently, the results of the evaluation are more relevant and are therefore more likely to be acted upon. Also, it is important to note that this type of evaluation is concerned with how a program or curriculum operates, therefore emphasizing the process rather than the outcomes (Curran et al., 2003). The use of issues orients an evaluation so that it can be more responsive to a variety of concerns and therefore can provide a more holistic account of a program or curriculum (Kemmis & Stake, 1988).

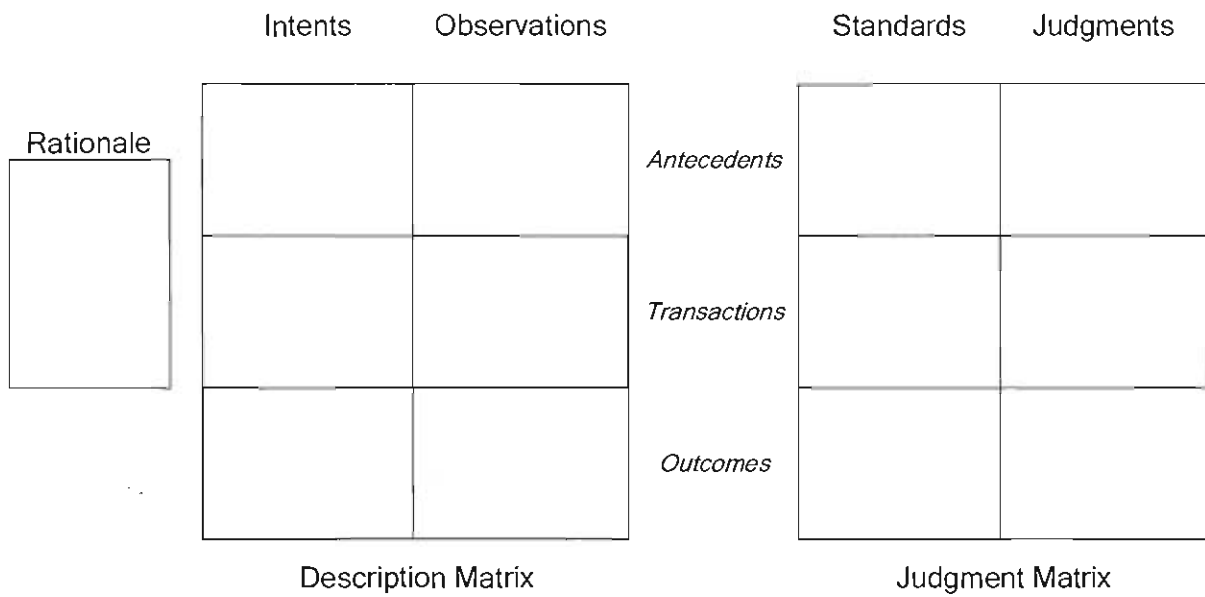
Because responsive evaluation models allow for both qualitative and quantitative research methodologies, responsive evaluation is often criticized for being too open and, in essence, vulnerable to the concerns and interests of the evaluator, who may in turn have difficulty prioritizing the issues raised by various stakeholders (Kemmis & Stake, 1988). Responsive program evaluation models are perceived to emphasize marginal issues instead of providing an evaluation of a program in terms of a set of fundamental criteria (Kemmis & Stake). However, Stake (1975) asserts that the lack of precision and measurement in responsive evaluation is a valuable compromise in order to increase the usefulness of the research findings.

The steps of responsive evaluation are described as documenting events, recording change, assisting in the decision-making process, seeking understanding, and finally facilitating remediation (Stake, 1975). The responsive evaluation model is compatible with the purpose and objectives of the study of the effectiveness of self-directed learning and self-assessment in portfolio models in various QA programs, since

a responsive evaluation tool can include how QA programs were established and whether these programs balance the needs of the individual learner while ensuring continued competence. Moreover, a responsive approach to evaluation in this context will help to assess if program change and remediation are required for QA programs in order to maximize their full potential.

The data matrix as outlined by Stake (1967), presented in Figure 2, provides a framework for an evaluator to gather and analyze the required data for assessing an educational program, including statements by various stakeholders. It is important to define the difference between description and judgment and the roles they fulfill in Stake's data matrix for educational program evaluation. Description within this evaluation framework includes instruction and achievement and the relationship between the two. Judgment as described in this evaluation framework suggests that the evaluator processes the judgments made by others rather than rendering a personal judgment. Therefore, the evaluator gathers subjective opinions in an objective manner (Stake, 1967).

The evaluation model proposed by Stake (1967) is comprised of the description and judgment matrices. Within the description matrix, there are both intents and observations. The intents of the educational program are the conditions, demonstrations, and behaviours that are considered when a program is designed. The intents can also include elements of the hopes, anticipations, and even fears related to the implementation of an educational program. In contrast, observations are the description of the surrounding environment and events as experienced by the evaluator. The judgment matrix includes both standards and judgments, which also play an important role in



*Figure 2.* Data matrices adapted from Robert Stake (1967).

*Note.* From "The countenance of educational evaluation," by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

reaching conclusions in Stake's process of evaluation. The primary goal of education is excellence, which requires explicit standards. The standards of an educational program vary between stakeholders, and it is the responsibility of the evaluator to indicate which standards are attributable to which group. Therefore, prior to making a judgment, the evaluator determines if the standards have been met and accordingly assigns importance to each set of standards. The final component of the data matrix is the rationale of the educational program, which is considered to be the philosophic background or purposes of the program (Stake).

According to Stake (1967), evaluation of an educational program requires that the antecedents, transactions, and outcomes of a program be taken into account. The antecedent is defined as the condition that exists prior to the learning, while the transactions are considered to be the series of events and engagements that constitute the process of education. Finally, the outcomes are the achievements, skills, and abilities that are produced from an educational experience (Stake). The evaluator must look at the relationship between these three indicators. In addition, the evaluator assesses what is planned for and what actually occurs in an educational program, thereby establishing contingency and congruence between the intents of the program and the evaluator's observations (Stake).

The functional structure of Robert Stake's responsive evaluation model can be identified as 12 recurring events that may occur simultaneously and with several repetitions until the evaluation is completed (Stake, 1975). The specific events included in the responsive evaluation model include talking with clients, identifying scope of program; discovering concerns, matching issues with the various interested parties, and



finally, formatting the evaluation for use by the intended audience. A significant portion of time in responsive evaluation is allocated to observing the program itself, followed by discussion with the various stakeholders involved in the program. It is the discussion with all interested parties that allows the evaluator to confirm the program scope, activities, and purposes while making comparisons among the various stakeholders, thereby helping the evaluator to establish the context of the evaluation. Stake places the 12 events on the face of a clock to illustrate the various processes involved in a responsive evaluation. The author notes that the relationship between events is not necessarily clockwise and predictable but rather a fluid movement between all events creating a holistic evaluation model for educational programs (Stake). In summary, it was hoped that Stake's responsive evaluation model would be a good match to a study of the selected QA programs as it provided a framework for examination of documents and for analyzing data from discussions with administrators. However, it is important to note that I conducted only some of the events proposed by Stake, given the limited scope of my study.

As previously described, responsive program evaluation is criticized for its vulnerability to the concerns of the evaluator, and therefore the evaluation may concentrate on marginal issues instead of purposeful criteria (Kemmis & Stake, 1988). Despite the critiques, responsive program evaluation has been useful in medical education studies to uncover meaningful information for decision-making processes. Curran et al. (2003) report that a responsive evaluation model was used in evaluating the clinical skills and assessment and training (CSAT) program at the Faculty of Medicine at Memorial University of Newfoundland. The study interviewed 12 graduates concerning

their experiences with the CSAT program, and an external evaluator conducted a metaevaluation of the responsive evaluation process. A modified version of Robert Stake's 12-step responsive evaluation model was applied to the CSAT program, and the results demonstrated that the evaluation gathered rich and descriptive information about the educational processes. The authors further contend that the study was successful in establishing the significance of responsive evaluation to the medical community because it advocates a focus on the stakeholders' need for information, uncovers conflicting concerns related to the achievement of medical education programs, and, finally, defines the underlying processes of medical education leading to program success.

#### Quality and Quality Assurance

In order to determine the issues surrounding the effectiveness of the portfolio component of selected QA programs, it is essential to explore quality assurance as a management style and to understand how it developed in the health care environment. Some authors view management styles such as Total Quality Management (TQM) and Continuous Quality Improvement (CQI) as management fads, as they were initially created for business or government organizations and applied in other contexts including education (Birnbaum, 2000). However, management fads are often abandoned in the sector where they were initially created as a new sector adopts the principles (Birnbaum). Although the sequence of transition between different sectors is unclear, it is possibly a result of interpersonal communications between individuals who have identities in many different sectors. There are social implications associated with management fads such as TQM and CQI. The philosophy of the management processes does not always align with the purposes of its application (Birnbaum). The following section explores the

definitions of quality and quality assurance and provides the historical evolution of Total Quality Management (TQM). In combination, these components contribute to the guiding principles of QA programs of Ontario health regulatory colleges.

### *Definitions of Quality and Quality Assurance*

Harvey and Green (1993) claim that the term quality is difficult to articulate, although an intuitive understanding of the term is evoked when it is used in a specific context. Koul (2006) also contends that quality is easy to identify and recognize without requiring a concrete definition. Quality is not only relative to the individual who uses the term but also to whether quality is being used to describe a process or a desired outcome (Harvey & Green). As a result, these authors argue that it is helpful to link quality to an activity in order to validate and justify it in the context of its use. The measurement and assessment of quality can often be elusive, as the evaluation must be within a confined frame of reference. Thus, just as quality is difficult to define, it is equally difficult to evaluate and measure (Ashworth & Harvey, 1994).

Quality can be viewed from multiple conceptualizations, including quality as exception, as perfection, and as fitness of purpose. When quality is termed *exceptional*, it means satisfying minimum standards as set by the monitoring body that establishes an absolute benchmark against which a product or service is compared (Harvey & Green, 1993). Accordingly, a government judges a program to be of exceptional quality because it directly correlates with meeting standards. In contrast, when quality is defined as *perfection*, the focus is on processes and on ensuring that everything is correct and either the product or service is without fault or error. By comparison, quality defined as *fitness of purpose* has only intrinsic meaning in relation to a product or service, although it also

contains an element of striving for perfection (Harvey & Green). For the purpose of the study, quality defined as exceptional appears to most appropriately reflect QA programming, as the focus is on meeting standards rather than on establishing absolute perfection.

The concept of quality as meaning exceptional is contained in the definition of quality assurance. As described by Dew and McGowan Nearing (2004), quality assurance is ensuring that a common external standard is met as opposed to seeking to continuously improve. Quality assurance also means ensuring that control procedures are followed (Ashworth & Harvey, 1994). It is essential to recognize that definitions of quality assurance and management models of quality assurance originated in industry and thus outside the context of adult education and health care.

#### *History of Total Quality Management (TQM)*

The formalization of quality and quality assurance began in North America in the late 1970s in response to the increased competition in international business markets (Harris, 1995). As a result, Total Quality Management (TQM) became an influential movement in Western organizations in both private and public realms. The philosophy and techniques of TQM can be characterized as a prevention approach to work that uses statistical processes to improve the quality of both goods and services, with a focus on client or customer satisfaction (Cardy, Dobbins, & Carson, 1995). Fenwick (1998) argues that TQM changed the structure of organizations and made them more level and fluid, in contrast to the traditional hierarchical structure. The central tenets of an organization influenced by TQM are an orientation to action and accountability for outcomes, with particular attention given to quality, culture, and the mission of the

organization. Teams with varying skills are formed to define and regulate their own work processes (Fenwick). A subset of TQM is Strategic Quality Management (SQM), which focuses on the needs of the learner and how the quality of the learning experience can be assured. It is within SQM that the characteristics of quality are identified and standards are formed (Ashworth & Harvey, 1994).

The historical evolution of TQM is valuable to this study of QA programs in health regulatory colleges, as many characteristics of this management style are found in both government initiatives and agencies. Since the fundamental purpose of QA programs is to ensure the quality of the practice of regulated health care professionals and to improve patient outcomes (Health Professions Regulatory Advisory Council, 2000), it is vital to understand how the impacts of TQM business designs for management may have influenced decisions made in other sectors, including health care. The design approaches of TQM and SQM appear similar to QA program development, as the focus of all the programs is on the patient or client. However, in health regulatory colleges, the needs of the individual learners should also be taken into account, as many continuing competence programs, including QA portfolios, contain an underlying notion of lifelong learning (Campbell & Mackay, 2001). The audit conducted by the College of Nurses of Ontario (CNO) in 2000 revealed that a significant number of nurses identified the purpose of the QA Program as the promotion of continuous lifelong learning in partnership with maintaining clinical competence (CNO, 2001). Therefore, the influence of business management styles including TQM and SQM needs to be partnered with the learning needs of health care professionals to ensure that QA programs promote quality practice while providing rich learning experiences.

### *Guiding Principles of QA Programs*

Most professional development and continued competence programs are founded in the tenets of adult learning theory that focus on relevant, real-life learning, a problem-centered rather than subject-centered approach to learning, and applying adults' rich tapestry of experiences that can be applied to learning on a continuing basis (Mann, 2004). Adult learning theories are consistent with both the humanist and constructivist frameworks previously identified and evident in many of the QA programs created and administered by health regulatory colleges in Ontario. In particular, the QA program at the College of Medical Radiation Technologists of Ontario was shaped around the assumption that adults are able to identify their own learning needs, can assume the appropriate learning activities to meet their learning objectives, and are able to document how these activities have assisted them in their professional role in the health care environment. The program was designed around the premise that adults could carry out all of the above-mentioned functions of learning if provided with the appropriate tools (CMRTO, 2003). Similarly, the QA program at the College of Nurses of Ontario (CNO) is based on the assumptions that a competent nurse will engage in reflective practice on an ongoing basis to provide ethical care that will contribute to the best possible outcome for the patient (Mackay & Risk, 2001). An evaluation of the guiding principles of the QA programs is essential in order to assess how Ontario health regulatory colleges have created programs and if the QA programs both meet the needs of the individual learner and fulfill the objectives of the programs to ensure continued competence. As will be seen in Chapter Four, although many of the QA programs identify the principles on which they are based, the public documents neglect to articulate the specific learning

theory that served as the foundation for the development of the portfolio component of QA programs and why it was chosen as the tool to measure continued competence. It is thus essential to uncover the guiding principles of QA portfolio programs to examine how learning is viewed by the organization.

### Meaningful Learning

In the field of adult education and especially within the humanist perspective, learning is considered meaningful when it satisfies the needs of the learner and engages the feelings of the learner (Scott, 1998). Several authors identify learning as meaningful when the learner is completely engaged. They describe self-directed learning and learner-centered curriculum as possible tools for achieving a meaningful learning experience (Collins, 1998; Emes & Cleveland-Innes, 2003). Organizational behaviour theory also adds to the concept of meaningful learning through the protean career model in which the individual directs and manages his or her career to achieve individual goals of success (Hall & Moss, 1998). Accordingly, meaningful learning will be explored through an examination of self-directed learning, learning contracts, learner-centered curriculum, and the protean career model.

### *Self-Directed Learning*

Self-directed learning has become a significant concept in the field of adult education. It supports the importance of the informal learning that occurs as adults carry out daily functions in their work, home, and community settings (Merriam, 2001). Although self-directed learning has been influential in the field of adult education, the idea is complex and multifaceted. Many educators describe self-directed learning by describing it as a process of learning, while others focus on learner characteristics

(Chovanec, 1998). According to Merriam and Caffarella (1999), self-directed learning can be defined as a process “in which people take the primary initiative for planning, carrying out, and evaluating their own learning experiences” (p. 293). A definition of self-directed learning of this nature concentrates on the relationship between the individual learner and curriculum, methods, and skills (Chovanec). Through a learning contract, “learners indicate what they will learn, how they will learn it, and how the learning will be evaluated” (Slusarski, 1994, p. 75).

Process-oriented explanations of self-directed learning can be characterized as linear, interactive, or instructional models (Merriam & Caffarella, 1999). The early models of self-directed learning as proposed by theorists such as Tough and Knowles in the 1960s and 1970s follow a linear approach where the learner advances through a series of steps in order to reach the desired goals set out in the individual plan for learning (Merriam & Caffarella). For example, the process proposed by Knowles can be summarized into the following six steps: climate setting, the diagnosis of learning needs, formulation of learning goals, identification of human and material resources, implementation of the appropriate learning strategies, and finally the evaluation of the learning outcomes (Merriam & Caffarella). In contrast, interactive models of self-directed learning are not considered to be as well planned as the linear model. Interactive models place an emphasis on two or more factors that interact to form episodes of self-directed learning. These factors may include environmental learning opportunities, learner characteristics, and the learning context (Merriam & Caffarella). Instructional models of self-directed learning are also considered to be process oriented as they include the frameworks that instructors can use in formal learning settings to integrate self-



directed learning. The use of instructional learning models provides greater control of learning and independence for the learner than in teacher-centered classrooms (Merriam & Caffarella). A cursory glance at QA portfolio models suggests that they follow a linear model of self-directed learning, as many of the portfolios follow steps including reflection, development of a learning plan, implementation of the learning plan, and finally, self-assessment.

On the other hand, definitions that focus on self-directed learning as an internal personality characteristic extend beyond the activities in which one engages and concentrate on the emotional characteristics of the learners who are self-directed by nature (Chovanec, 1998). Definitions that focus on the individual learner tend to move “beyond the focus of self-directed learning as a set of activities in a self-instructional process to a study of the motivational, cognitive and affective characteristics or personalities of the self-directed learners” (Oddi, cited in Chovanec, p. 303). Merriam and Caffarella (1999) argue that much of the research conducted on self-directed learning as a personal attribute is linked to an individual’s psychological readiness and may be measured with Guglielmino’s Self-Directed Learning Readiness Scale (SDLRS). The SDLRS calls attention to psychological qualities including initiative, independence, the ability to be goal oriented, and the belief that problems are challenges and not obstacles. The SDLRS established by Guglielmino has been used in many studies to establish a correlation between self-directed learning readiness, professional development, and job performance, but the measurement tool has been subject to criticism for lacking reliability and validity for assessing adults’ ability to be self-directed (Merriam & Caffarella). Although both definitions of self-directed learning follow a path of

constructivist and humanist thought, the process definition served as a reference point for the study of the effectiveness of self-directed learning and self-assessment in QA programs of selected health regulatory colleges, as it allowed for a more encompassing perspective when applied in the regulatory college setting.

Currently, research on self-directed learning is not as prevalent as it was in the 1970s and 1980s when Malcolm Knowles popularized the term andragogy in the field of adult education (Merriam, 2001; Merriam & Caffarella, 1999). The term andragogy refers to “the art and science of helping adults learn” (Knowles, 1980, p. 43) and was based on five assumptions about the adult learner. These assumptions suggest that as adults mature, they move towards self-direction and that previous learning experiences are a valuable resource for future learning activities (Merriam & Caffarella). However, critical theorists argue that andragogy appears to be extremely technical and suggests that teaching and learning can be reduced to simply a relationship of cause and effect (Cranton, 2000). Collins (1998) argues that self-directed learning and self-directed learning contracts imply that there is a standard approach to planning and designing curriculum for adults, whereas the practice of emancipatory lifelong learning should include issues of social justice to redress inequities that are inherent in society. Moreover, andragogy as a concept is often criticized for lacking reference to the social issues of the surrounding environment (Plumb & Welton, 2001). In order to fully appreciate self-directed learning, the contradictions need to be examined. The most common challenge of self-directed learning is the assumption that it can be taught. This in turn raises questions regarding the role of formal and structured education in the self-directed learning model (Chovanec, 1998).

### *Learning Contracts*

An examination of learning contracts further contributes to an understanding of the concept of self-directed learning. According to Knowles (1986), when adults are engaged in self-directed learning activities, the learning is deeper and more permanent. However, when adults are engaged in learning to improve upon their competence, the needs and expectations of external organizations must be taken into consideration. Learning contracts provide a method for reconciling the needs of the organization and the individual needs of the learner. Knowles describes eight steps in order to establish a learning contract: diagnose learning needs, specify learning objectives, specify learning resources, specify evidence of accomplishment, articulate how the evidence will be validated, review contract with consultants, carry out the contract, and finally, evaluate the learning. Knowles does contend, however, that the learner can always change both the content and methods of the learning process, thereby making adjustments to the learning contract as it is being carried out. Portfolios can be considered a form of a learning contract, as individuals can organize their learning goals in a structured manner and cycle through the steps identified by Malcolm Knowles from diagnosing learning needs and evaluating the knowledge obtained from the learning experiences.

### *Learner-Centered Curriculum*

Learner-centered curriculum is linked to self-directed learning by some authors. Emes and Cleveland-Innes (2003) define learner-centered curriculum as a means to allow students to participate in the construction and implementation of learning experiences. Within this concept of learning, the individual learner is the continuous but not the exclusive point of reference. The authors maintain that by allowing the learner to

participate fully in the learning experience, skills in decision-making, knowledge construction, and curriculum design are acquired that will assist individuals in their pursuit of lifelong learning. As a result, learning becomes meaningful. It is not simply the acquisition of knowledge but rather a process for creating knowledge (Emes & Cleveland-Innes). Meaningful learning is a fundamental component of the QA programs created by health regulatory colleges, since they aspire to establish programs that invite learning for members and curriculum ownership while maintaining a standard quality of health care services to the public. At the same time, meaningful learning raises many questions regarding how health regulatory colleges determine not only what is considered significant to their membership but, more important, how they can create a single program that has the ability to meet diverse learning needs while ensuring continued competence.

### *The Concept of the Protean Career*

Another important component of meaningful learning is the notion of the protean career, a concept in the field of organizational behaviour theory. According to Hall and Moss (1998), the relationship between the employer and the employee, often referred to as the psychological contract, was previously rooted in a long-term, mutually satisfying relationship that resembled characteristics of familial life. There was an unconditional relationship between employer and employee in this psychological contract, as lifetime employment led to both financial security and a sense of pride for being associated with a particular organizational team. Changes in the psychological contract began to shift in the late 1970s as the conventional long-term relationship began to be replaced by a shorter transactional one. Consequently, the focus of the career contract was no longer

grounded in the organization and its security and accordingly shifted the responsibility for employability to the individual (Hall & Moss).

The protean career possesses distinctive features which separate it from the previous contract held between the organization and its employees (Hall & Moss, 1998). Within the protean career model, the career is managed by the individual and is comprised of a lifelong series of learning experiences, skills acquisition, and identity transformations which contribute to the overall character of the individual. Development in a protean career is continuous, self-directed, and found in everyday challenges in the workplace environment. Weick (2001) contributes to the understanding of a career without boundaries by using the analogy of shifting identities. He suggests that the new career is a series of occasions where both improvisation and learning take place and that these experiences, when shaped together, become patterned fragments that lead to greater learning opportunities. Finally, Hall and Moss argue that in the new career contract, the organization can contribute to the success of learning by providing employees with complex assignments and developmental relationships.

Another distinguishing feature of the protean career is the need for the individual to acquire metacompetencies that encompass both self-knowledge and adaptability (Hall & Moss, 1998). Organizations are in constant flux and change, which would explain the need for employees to develop metacompetencies to survive in dynamic workplace environments (Tichy, 1980). Hall and Moss define metacompetencies as the skills associated with learning how to learn. These metacompetencies allow employees to respond to new demands from the organization without waiting for training or development initiatives from the employer. Mayrhofer and Iellatchitch (2000) also

suggest that metacompetencies enable individuals to adjust to new tasks and relationships within the organization while simultaneously internalizing new roles and responsibilities into their own personal identity. Without self-awareness, the process of adapting to the changing environment can become a reactive process, thereby impacting negatively upon the individuals' values and goals (Hall & Moss). On the whole, organizational development literature surrounding the protean career demonstrates that metacompetencies are an important aspect of the new career model, for they provide individuals with the tools necessary to acclimatize to the changing environment of the organization.

An important feature of the protean career is the goal of psychological success attained through the process of continuous learning (Hall & Moss, 1998). The motivator for continuous learning in this career model is the new career contract designed for the individual and his or her own work as opposed to being a binding contract with the organization. Psychological success is related to internal criteria including values and vision in contrast to external indicators such as job promotion (Hall & Moss). Weick (2001) expands upon this idea, suggesting that the external guides for success such as advancement in the organizational hierarchy are replaced by dependence on internal and self-generated guides, including continuous growth and knowledge acquisition for the individual. Hall and Moss provide an example of psychological success that assists in understanding the concept of the protean career. They refer to Shepard's claim that the journey of successful career management must include the heart, that is, an employee's cherished skills and interests. When a career path includes the individual's heart, the paycheck provided by the organization is viewed as a generous gift rather than

compensation, for he or she is being paid to follow self-directed goals and aspirations. In summary, some authors indicate that psychological success is a defining attribute of the protean career because the employee's desires and values take priority over the organization's goals and perspective of career success.

In summary, meaningful learning is a complex concept that has been explored through a discussion of self-directed learning, learning contracts, learner-centered curriculum, and the protean career. This examination contributes to the understanding of the importance of recognizing the individual in learning experiences in order to ensure that learning is both engaging and meaningful. The possibilities of meaningful learning are explored through a description of the role of meaningful learning within the framework of mandatory QA programs for health care professionals in Ontario.

#### *Mandatory QA Programs and Meaningful Learning*

At a first glance, it may appear impossible for mandatory QA programs to consist of meaningful learning opportunities. However, health regulatory colleges in Ontario have designed programs that aim to both meet the legislated requirements and provide opportunities for meaningful learning to occur for the individual by opting for a constructivist approach. Although QA programs are mandatory for regulated health care professionals, the ways in which they fulfill the legislated requirements aim at providing the freedom and engagement essential to meaningful learning. For the most part, the QA learning portfolios do not specifically address the issue of whether health regulatory colleges believe that they can truly create opportunities for meaningful learning in a mandatory framework. Accordingly, this is an area where further research can contribute to the overall understanding of how health regulatory colleges view mandatory learning

in self-directed program designs. This study proposed to explore administrators' views on the intentions and effectiveness of self-directed programs to promote meaningful learning.

### *Self-Assessment*

As part of the analysis of a self-directed learning model such as the CMRTO's QA program, it is important to establish the salient features of self-assessment and to assess the perceived benefits to the learner as well as the development required for its successful implementation. According to Garrison and Anderson (2003), assessment in any format is a mechanism that unites external measures of learning with a self-understanding of learning processes. Boud (1995) feels that assessment is the most significant trigger for learning. Every act of assessment should provide the learner with a message regarding what he or she should be learning in addition to the appropriate strategies required for attaining desired objectives. Boud argues that self-assessment is a necessary skill for effective lifelong learning because it provides the learner with the ability to be a judge of individual performance and accomplishments. In order for learning to be considered effective, the learner must constantly examine how to build the necessary bridges between the knowledge attained and the knowledge desired while continually modifying learning strategies in an appropriate manner. Fenwick and Parsons (2000) describe self-assessment as the process through which the learner identifies the necessary criteria for his or her individual learning and constructs judgments regarding the extent to which the standards have been satisfied. It is important to note that self-assessment is not an evaluation strategy that is intended to be performed in isolation but



rather a process that enables the learner to place values on achievement, as identified by both self and fellow colleagues (Fenwick & Parsons).

Several authors assert that self-assessment has many benefits for the learner that can be directly applied to professional environments. Fenwick and Parsons (2000) maintain that self-assessment has several advantages for the learner, including an increased willingness to learn and a heightened awareness of individual thinking. The authors suggest that self-assessment fosters responsibility and increases confidence, especially when comparing personal abilities to standards set by an organization or a profession. Brown and Knight (1994) add to the discussion by claiming that self-assessment enables the learner to develop and maintain transferable skills including leadership, teamwork, and problem-solving. For these specific reasons, Boud (1995) notes that self-assessment is frequently utilized to improve upon professional practice within a working environment. Since self-assessment in the workplace is used to monitor professional practice, reflective abilities need to be created. Fenwick and Parsons further argue that self-assessment is particularly useful in a work environment, as it develops and improves employment related skills by increasing an employee's ability to focus, communicate with others, and think critically. In summary, self-assessment in the work environment increases self-awareness and enhances self-direction, a fundamental component to monitoring one's individual competence (Fenwick & Parsons).

Several steps are required in the planning of any adult learning program that involves self-assessment (Fenwick & Parsons, 2000). This type of evaluation is difficult for learners who are more familiar with external assessments, suggesting that change will not be automatic or even natural. However, the authors advise that if learners are

provided with clear guidelines for the rationale of self-assessment as well as models or exemplars, the process will become internalized and learners will be better able to apply the model to their own performances. Accordingly, time is an essential component of self-assessment, as learners will need to develop the appropriate skills for this evaluation method. Although Fenwick and Parsons outline the use of self-assessment in both informal and formal learning environments, this paper focuses on formal settings, as the CMRTO QA program used here as an illustration of a current program, is a legislated activity, and therefore is considered a formal process in the regulated health care community. However, this formal process does not have the same meaning of formal learning as commonly found in adult education theory (Merriam & Caffarella, 1999), where it is related to obtaining degrees conferred by institutions.

#### *Mandatory QA Programs and Self-Assessment*

A crucial element of the humanist perspective that is related to QA portfolio models is the idea that each adult learner is an individual and the ultimate purpose of learning is to promote independent growth. Each learner needs to be regarded as an individual, and the purpose of learning is to promote self-esteem and confidence (MacKeracher, 1996; Pratt, 1998). Self-assessment as demonstrated in the CMRTO QA program seeks to provide members with the opportunity to develop skills and confidence while equally valuing individuality. It is designed so that each member has the ability to develop his or her own learning goals and carry out individual activities to meet learning challenges. Simultaneously, the self-assessment portion allows each member to judge performance and improve upon professional skills, as recommended by Fenwick and Parsons (2000). The ability to assess accomplishments provides each individual with the

opportunity for greater precision in designing activities that may lead to professional success, which in turn may continue to enhance confidence and growth. Self-assessment within a self-directed learning model such as the CMRTO's QA program seeks to assist in establishing the confidence and transferable skills proposed by Brown and Knight (1994). The potential benefits for the individual and the profession are equally important in that the member continues to be regarded as an individual with unique learning needs and qualities, while the health care community benefits from a grouping of professionals with skills that are continually maturing and evolving.

In a similar way, the design of the CMRTO QA program is congruent with the holistic view of the individual and the learning process that is highly valued by the humanist perspective. As described by both Draper (2001) and MacKeracher (1996), the humanist orientation is concerned with viewing the adult learner as a holistic being in society. The design of the CMRTO QA program as a process-oriented model of self-directed learning establishes this holistic view. As the entire QA portfolio is individual in nature, it seems logical that the assessment portion should be conducted by the member and not by an external force such as the QA Committee or the College staff. By including self-assessment in the QA program, the members are provided with the opportunity to further develop many dimensions of the self and establish a connection between learning goals, activities, and assessment. In addition, the self-assessment portion of the QA program stimulates subsequent learning activities, as recommended by Boud (1995), and provides a trigger for learning that bridges the knowledge and skills currently mastered and those that remain to be acquired. The concept of connecting knowledge and skills is an essential element in health care, as continued competence is

fundamental to providing high quality services and care to the public. Self-assessment in this program not only completes and finalizes learning events but plants the seed for a new learning experience that will fuel the journey of a lifelong learner, as proposed by Boud. It is important to recognize, however, that the humanist perspective of holistic learning is not congruent with the point of view established within a critical paradigm. The purpose of self-assessment in the QA program is not intended to promote social change or radical action which would be essential elements of a view of learning from the critical perspective (Plumb & Welton, 2001).

Many of the QA programs created by Ontario health regulatory colleges have varying levels of support regarding self-assessment for those members requiring assistance to fulfill the legislative mandate of completing a QA program. The College of Nurses of Ontario (CNO) has developed a viable alternative to assist members in fulfilling the mandatory Reflective Practice requirements of the QA Program (Taggar & Clarke, 2001). This distinct tool uses a series of standardized statements related to specific competencies that nurses can use to self-assess individual performance. The authors propose that members who have difficulty identifying learning goals or who struggle with self-directed learning models will find these statements useful. Of course this concept assumes that one can teach self-directed learning initiatives to adults, which is a continuing debate in the field of adult education (Collins, 1998). Similarly, the Ontario College of Pharmacists has developed an approach to continuous learning activities that allows members to meet with their peers from the profession to help identify learning needs and resources (Croteau et al., 2002).

The College of Medical Radiation Technologists of Ontario outlines several benefits to members provided by the QA tools in the program, including the identification of strengths and knowledge gaps, a focus for professional development activities, and an overall plan for continuous learning and career aspirations (CMRTO, 2003). These advantages allow for individuality and permit members to build knowledge bridges between new knowledge and past experiences, an important aspect of a constructivist approach (Magro, 2001).

Establishing equilibrium is an essential component of this study, as it explored to what extent QA programs achieve the balance required in constructing a QA program that meets the needs of both the legislation and the membership. However, the studies reviewed above do not address what indicators health regulatory colleges use in order to determine when new initiatives are required for members to complete the portfolio component of QA programs. Such indicators would be a crucial element of the research to determine how health regulatory colleges monitor their programs on a continuing basis to help members comply with legislative requirements.

### Portfolios

Portfolios are generally described as a goal-driven collection of artifacts that demonstrate an individual's development of both knowledge and skills over time. Regardless of the content, organization, or final presentation, all portfolios display evidence of growth over time (Kilbane & Milman, 2003). In particular, professional portfolios are purposeful collections of reflections on an individual's work, effort, and progress within a profession to capture critical moments of professional development (Kilbane & Milman). Within the nursing health profession, portfolios are generally

viewed as narrative presentations of an individual's professional accomplishments, as the portfolio often documents learning and clinical competence from the clinical practice environment and from formal and continuing education (Black Monsen, 2005).

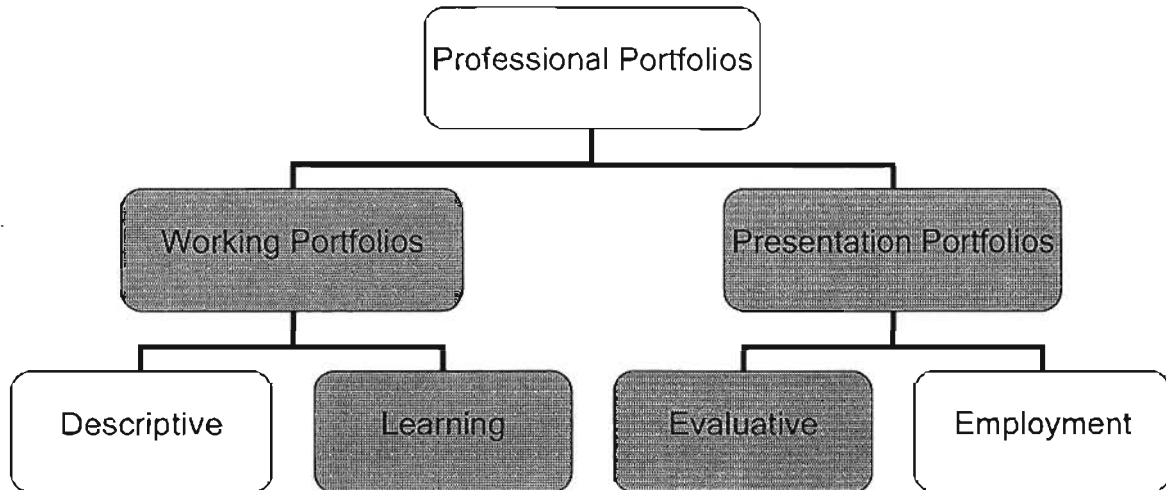
Professional portfolios can be further defined as either a working portfolio or a presentation portfolio. Working portfolios are characterized as a large and complete collection of work over time that demonstrates strengths and weaknesses in addition to successes and failures in an individual's professional work. Learning portfolios are considered to be a type of working portfolio, as they stimulate reflection and self-assessment and further emphasize an individual's work and learning in progress (Kilbane & Milman, 2003). Portfolios in this context provide a dynamic picture that represents both a retrospective look at the past while at the same time providing a prospective look at the future (Taylor, Thomas, & Sage, 1999). The use of learning portfolios recognizes that each individual has different learning needs and establishes a method for identifying gaps and learning goals as unique as the individual learner (Austin et al., 2003).

In contrast, presentation portfolios represent a subset of materials located within an individual's working portfolio. The purpose of the items selected from the working portfolio may be to reflect a set of standards or specific goals. In this case, presentation portfolios are considered to be evaluative. Some professional groups in various fields have developed specific standards and guidelines that are followed for the presentation of portfolios. In comparison to evaluative portfolios, some portfolios may be created for a specific audience in a particular area of interest in order to gain employment, and are therefore classified as employment portfolios (Kilbane & Milman).

The professional portfolios used in the context of health regulatory colleges in Ontario as part of the QA program contain elements of both working and presentation portfolios as represented by the shaded sections of Figure 3. I have created this figure to provide a visual representation of the text presented by Kilbane and Milman (2003). Primarily, the portfolios are used to document professional learning through reflection and self-assessment, which are characteristics of a working portfolio. However, because QA portfolios are used as part of an evaluative process and may be purposefully arranged in order to display particular standards or competencies, they display characteristics of presentation portfolios. The working and presentation characteristics of the portfolios will be explored further in the document review of QA programs for this study.

#### The Use and Effectiveness of Portfolios in Professional Development

In order to meet a statutory requirement, the Health Professions Regulatory Advisory Council (HPRAC) retained the services of Harry Cummings and Associates (HCA) to evaluate the QA programs of Ontario health regulatory colleges. The methodology adopted by HCA required modification because at the time the study was conducted, an assessment of QA programs could not be done as not all of the programs were fully operational (HPRAC, 2000). Accordingly, the evaluation was modified to exclude evidence of effectiveness, and it focused on comparing QA programs to a model proposed by HCA. The model QA program contained a practice assessment, continuing competence, review and enhancement of the profession, standards of practice, entry to practice, and remediation. The continuing competence component included professional portfolios and continuing education. The evaluation framework used by HCA was a broad evaluation framework in combination with a literature review of quality assurance



*Figure 3.* Concept map of types of professional portfolios adapted from the text of Kilbane and Milman (2003).



and Continuous Quality Improvement (CQI). The result of the HCA report indicated that there was a need for QA programs to define linkages between program components and to strengthen effectiveness of programs. Moreover, the study concluded that evaluation of QA programs needs to be an ongoing initiative and not an occasional undertaking. The report additionally suggested that health regulatory colleges should keep abreast of current research on quality assurance in order for the programs to maximize effectiveness (HPRAC, 2000). Although portfolios were not specifically targeted in the analysis, the issues raised describe some of the concerns that surround the effectiveness of QA programs in general, and the concerns can be extended to the portfolio component.

A study of pharmacists in Ontario and their perceptions of the effect of learning portfolios on practice provides insight into the use and effectiveness of portfolios for professional development. In 1996, the Ontario College of Pharmacists (OCP) introduced the Learning Portfolio as a component of its QA Program. The College has not specified a prescribed format for the Learning Portfolio but has developed guidelines to assist pharmacists in meeting the regulatory requirements of the program. A unique phase of the Learning Portfolio component of OCP's QA program is the Portfolio Information and Sharing Sessions, which consist of facilitated discussion of continuous professional development that pharmacists participate in if randomly selected by the College (Austin, Marini, & Desroches, 2005). The study adopted a mixed-method research design to measure pharmacists' continuous professional development and to evaluate the role of the Learning Portfolio in assisting with continuous professional development activities. The OCP randomly distributed 1,415 survey questionnaires to registered pharmacists in Ontario in 2003. The data collected were quantitatively

measured to determine the extent of professional development activities, while the free-form notes from the survey were gathered for qualitative thematic analysis. In addition, written comments were gathered from the Portfolio Information and Sharing Sessions to obtain additional data in order to further understand the value of learning portfolios from the pharmacists' perspective (Austin, Marini, & Desroches).

The results of this particular study established that some pharmacists have difficulty initiating and maintaining a learning portfolio and that there is great value in sharing professional development experiences with other colleagues as experienced in the Portfolio Information and Sharing Sessions. A key finding was that 46% of the survey respondents indicated that they had three to five learning objectives per year. However, the range of learning objectives and time spent achieving the learning goals varied a great deal (Austin, Marini, & Desroches, 2005). The study revealed that many pharmacists acknowledge the effectiveness of the portfolios for professional development in principle, but equally concede that portfolios can be falsely created if a member is randomly selected by the College to submit a complete learning portfolio. In conclusion, the study determined that education, implementation, and monitoring are key requirements to assist health care professionals to develop their self-directed learning and self-assessment skills and ultimately their practice (Austin, Marini, & Desroches). This particular study provided information regarding the perspective of the health care professional and portfolios as a means of professional development. However, it did not explore the perspective of the college administrator. The study of pharmacists in Ontario establishes some of the issues that surround the use and effectiveness of portfolios for professional

development but is limited to the experience of pharmacists and not all health care professionals in the province.

A similar study by Jane Lemke (2007) explored the perceptions of 11 nurses who completed at least one learning activity as part of the College of Nurses of Ontario (CNO) Reflective Practice program. This regulatory college requires all members to complete a Reflective Practice learning activity each year. The process includes identifying a practice problem, creating and implementing a learning plan, and then finally evaluating the outcomes achieved. The participants' perceptions were based on (a) the Action Learning experience, (b) positive and negative characteristics of the Action Learning experience, and (c) the identification of barriers and challenges within the experience.

Overall, the participants perceived reflection to be a positive experience because it allowed the nurses to focus on practice problems and enhanced their awareness regarding difficulties in their workplace environments. Two participants reported negative emotional experiences with the Reflective Practice program but were able to identify strategies for overcoming these perceptions. Many participants outlined that self-directed learning and journal writing were difficult activities and described the challenges of implementing Action Learning plans including a lack of understanding of the College's processes and a perceived lack of support from employers.

The study of nurses' perception of the CNO's Reflective Practice program provides similar results to the study conducted by the OCP presented earlier. Both studies provide information regarding the perceptions and experiences of health care professionals who use portfolios as a component of QA programs. The studies are both

focused around the nursing and pharmacy professions and are therefore not applicable to all health professions within the Ontario regulatory college framework. Further, these studies do not include the administrators' observations of the portfolio models. However, both studies demonstrate that the use of self-directed learning and self-assessment have benefits while at the same time presenting some challenges and barriers.

### Summary of the Literature Review

The conceptual frameworks of humanism, constructivism, and Robert Stake's responsive evaluation model has provided the lens to examine QA portfolio programs in the context of adult education literature through a specific focus on self-directed learning and self-assessment. The review of literature has also outlined the implications of self-directed learning initiatives on an individual's career as described through the protean career model. At the same time, the examination of quality assurance as a management style provides a contextual backdrop to this study through an exploration of the definitions of quality, quality assurance, and the historical evolution of Total Quality Management (TQM). In addition, the learning principles that guide QA programs and issues such as compliance and active engagement in mandatory learning activities have been described. The types of portfolios and their use and effectiveness in professional development initiatives are examined through studies of different health professions. The literature review has revealed that there are benefits and challenges experienced by health professionals who complete learning portfolios but has also uncovered that the perspective of the college administrator is absent from such studies. The summary of literature has assisted with providing the theory and frameworks necessary to explore the issues surrounding the effectiveness of the portfolio component of QA programs. The

theoretical perspectives of humanism and constructivism will assist with the analysis of the learning components of portfolios, while Robert Stake's responsive evaluation framework will provide a means to identify the issues related to the effectiveness of portfolios. In order to understand the creation, maintenance, and evaluation of QA programs for regulated health care professionals in Ontario, this study has used data collected from a document review of portfolio programs and from interviews with health regulatory college administrators. The following chapter describes the methodology used to meet this purpose.

### CHAPTER THREE: METHODOLOGY

In order to determine some of the issues surrounding the effectiveness of the portfolio component of QA programs of selected Ontario health regulatory colleges, this study adopted a generic qualitative design, informed by case study methods (Leedy & Ormrod, 2005; Merriam, 1998). The use of multiple methods to collect data from a variety of resources establishes research rigour and supports the analysis and conclusions drawn through triangulation (Mertens, 2005).

The objectives of this study have been achieved through the use of a document review of QA programs with a portfolio component, in combination with semistructured interviews. The data collected during the interviews helped to establish 6 college administrators' perception of QA portfolio programs. The data collected during the document review were integrated with the interview responses during the analysis. Although expressed in percentages and frequencies, the data collected in the document review were not statistically manipulated but were rather used in general terms for their descriptive qualities (Anderson & Arsenault, 1998).

I chose qualitative methodologies because they provide several benefits including the ability to expose the nature of specific settings and processes and to gain new understandings of distinct practices (Leedy & Ormrod, 2005). Qualitative research explores phenomena in a natural setting through conversation and observation in order to interpret, understand, and bring meaning to a particular context of interest (Anderson & Arsenault, 1998). At the same time, the characteristics of qualitative research methods including interviews and parts of the document review are congruent with the humanist and constructivist conceptual perspectives and Robert Stake's responsive evaluation

model that frame this study. As previously described, constructivist thought is rooted in the idea that knowledge and truth are socially constructed and encompass multiple views instead of one solitary perspective (Emes & Cleveland-Innes, 2003; Scott, 1998).

Consequently, a qualitative research method allows for the multiple approaches of QA programs to be outlined and discussed from the viewpoint of a variety of health care professions. Accordingly, this information may lead to a better understanding of the effectiveness of QA portfolio programs in the specific context explored in this study. This chapter details the participant selection, data collection, and data analysis methods used for the document review and interviews of health regulatory college administrators and describes the data collection instruments created for this study. In addition, this chapter outlines the ethical considerations, the measures undertaken to establish credibility, and the limitations of the methods used.

### Document Review

According to Mertens (2005), the documents created by organizations trace both history and status and in essence tell the reader a story of an organization's evolution. The author suggests that documents help to obtain background information and insight into the dynamics of the context in question. Merriam (1998) recommends the use of documents in a qualitative study in order to ground the investigation in the parameters of the context and to add richness and texture to the research. A document review is additionally beneficial to a qualitative study, as it provides a good source of text that is presented in the language of the participants, which in turn allows the researcher to become familiar with context-specific terminology (Creswell, 2005). Although Creswell suggests that documents can be reviewed at any time and are ready for analysis in their

original state, Merriam argues that a document review must be guided by specific questions in order to be systematic and at the same time must allow for emergent and accidental findings which add value to the data collected. This study used the method described by Merriam. The document review was guided by specific questions and allowed for unexpected findings that helped answer the research questions.

The document review in the context of this study involved examining QA program portfolio models and workbooks. This review of regulatory college QA portfolios occurred before the interviews and was valuable for two reasons. Primarily, it provided insight into the history and development of QA program design. Further, it added depth and breadth of understanding to the interviewing process and resulted in new questions to ask college administrators. The examination of portfolio documents provided comparative data which were valuable during the analysis, helping to fill Stake's program evaluation matrix and to answer the research questions.

#### *Sample for Document Review*

For the document review of learning portfolios of QA programs, I chose to use a purposive sample based on a specific set of selection criteria. I reviewed 14 portfolio programs from health regulatory colleges, thereby representing over half of the total number of regulatory colleges in the province (see Appendix A for the list of the 22 Ontario health regulatory colleges). I reviewed only portfolios that were accessible from college websites to ensure that the required information was easily obtained. The selected colleges for the document review were not based on membership size or profession, as I hoped to create a balanced representation of health regulatory colleges in the province. However, because I was interviewing administrators of colleges with 2,000



to 8,000 members, I included all colleges of this membership size to ensure that I was familiar with the portfolios in this specific context. There were approximately 11 colleges that had a membership between 2,000 and 8,000 at the time of the document review. By including the portfolios from the specified sample for the interview portion of the study, I became familiar with the organizations' terminology and design and I was thus able to ask the administrators specific questions about their portfolio programs.

#### *Data Collection Instrument for Document Review*

The document review protocol (see Appendix B) is a data collection tool that I developed to capture the information from the websites reviewed as part of this study, in an attempt to gather information that was both organized and systematic and open to unexpected findings (Merriam, 1998). The instrument includes a chart to note information such as college name, website address, membership size, and date of current portfolio program. This information provided a quick reference point for the document review and also ensured that the portfolios reviewed met the predetermined criteria I established for the sample. By collecting college membership figures, I was able to organize data and analyze trends based on college size. The remainder of the document review protocol was separated into three sections related to (a) design, (b) learning and assessment, and (c) evaluation of learning portfolios. Within these three distinct sections, there are targeted questions with additional space for details. By targeting data within specific parameters, I structured the document review and collected specific data. At the same time, the instrument allowed for the collection of qualitative data including description and detail, which helped to develop themes during the analysis process.

### *Data Collection for Document Review*

The data collection for document review took place between March 1, 2007 and April 30, 2007. As described by Merriam (1998), data collection for a document review is similar to the approach used for qualitative research methodologies. The process of gathering information from documents is guided by questions, instinct, and emergent ideas. It is important to recognize that although the process is organized and systematic, the data collection method should be open to unanticipated and accidental findings. Part of the document review included the collection of data that could be presented in the form of percentages and frequencies. This type of data included the following:

- components of portfolios; number of stages required for portfolio completion;
- measurement of learning; number of websites that describe a philosophy of learning;
- number of colleges that use self-assessment and self-directed learning;
- description of learning activities and their associated values;
- percentage of members selected to submit learning portfolios;
- calculations of available program support;
- number of colleges that communicate feedback to members;
- number of websites that provide details regarding program evaluation; and
- number of colleges that use SMART goals.

The authenticity of the documents used in a review of this nature is very important (Best & Kahn, 2003). Therefore, I obtained the QA program documentation directly from the websites of the health regulatory colleges. By retrieving the documents

from the organization, I acquired information from the primary resource and ensured that I reviewed the official QA portfolio programs as presented by each institution.

#### *Data Analysis for Document Review*

In order to analyze the data collected from the document review, it was important to organize the data within the three main categories of portfolio design, types of learning and assessment, and portfolio evaluation and member support. The next step was then to decide how to best display the data and how to incorporate those results with the qualitative findings. Accordingly, the description matrix of Robert Stake's responsive evaluation model served as the framework for analyzing the QA programs that were examined. As previously described, the description matrix is comprised of both intents and observations of educational programs (Stake, 1967).

The data collected through the document review helped to determine the rationale and antecedents of the reviewed programs as well as the interactions experienced by the individual learner. The data supplied some information regarding the rationale behind the portfolio component, its philosophic background and the intended purposes of the program. Some of the websites described the portfolio's antecedents, that is, the conditions prior to the learning, such as the history of the programs and the conditions in the organization that existed before the implementation of the portfolio. I collected information regarding the intended transactions in the learning experience. As previously described, the transactions are the succession of engagements that comprise the process of education. The transactions included the components of the portfolio, the sequence of events in its completion, and the use of self-assessment and self-directed learning. Some documents did not specify the outcomes, such as the skills and abilities expected to result

from educational activities, as portfolios are generally guided by the goals of the individual learner. Figure 4 displays how the results from the document review apply to the data matrix.

Once the data from the document review were collected and analyzed, the results provided the basis for some additional interview questions. After I conducted the document review, it was evident that the data on two important aspects of the portfolios, the random selection process and specifically the number of registrants selected each year to submit completed portfolios, were not consistently provided on all of the websites. Following the pilot interview and discussing the questions with both the pilot participant and my thesis advisor, I decided to add a question regarding the selection process to the interview protocol. The intents of the QA learning portfolios that were identified through the document review were then compared to the perceptions of the regulatory college administrators who were interviewed.

### Interviews

A qualitative interview is characterized by a researcher asking one or more respondents a series of general, open-ended questions (Creswell, 2005). Open-ended questions offer an opportunity for participants to voice experiences and ideas and provide the researcher with a variety of responses. Semistructured interviews focus around a few central questions while allowing for flexibility to ask additional questions during the course of the interview (Leedy & Ormrod, 2005). This type of interview structure allows the researcher freedom to explore ideas and concepts that evolve during the conversation and permits the respondent to define the context in question in unique ways (Leedy & Ormrod; Merriam, 1998).

	Intents	Observations	
Rationale	Document Review	Interview Responses	<i>Antecedents</i>
Document Review / Interview Responses	Document Review	Interview Responses	<i>Transactions</i>
		Interview Responses	<i>Outcomes</i>

Description Matrix

*Figure 4.* Application of results to description matrix adapted from Robert Stake (1967).

*Note.* From “The countenance of educational evaluation,” by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

The use of interviews in a research study has several advantages and disadvantages. Primarily, interviews let the researcher gather information that is not directly available or observable. Interviews also allow for a rich tapestry of detail to be explored and analyzed that would otherwise be difficult to collect using alternate research methodologies (Creswell, 2005). On the other hand, there are several disadvantages that need to be taken into consideration when choosing interviews as a data collection method. The responses may not be clear or perceptive, and the presence of the researcher may have an impact upon how the respondents answer the questions. More important, interviews are filtered through the views and perspectives of the researcher and contain only the information that the interviewer seeks to obtain (Creswell). Despite these shortcomings, the interviews were considered appropriate for this study, as they elicited the administrators' insight into the portfolio component of QA programs.

In addition, the use of semistructured interviews coincided with both the main research question and the theoretical frameworks of constructivism, humanism, and Robert Stake's responsive evaluation model (see Table 1). I believe that the use of interviews as a data collection method addressed some of the research gaps identified in the review of literature, including how different health regulatory colleges view meaningful learning, how regulators have decided on guiding principles for research design, and how the guiding principles are related to the marketing and promotion of QA programs throughout the province. By framing specific questions around these issues, I gained a greater understanding of QA program development, maintenance, and evaluation, which complements the current information on the subject.

Table 1

*Relationship Between Semistructured Interviews and Theoretical Frameworks Used in the Study*

<b>Semistructured interviews</b>	<b>Theoretical frameworks</b>
<ul style="list-style-type: none"> <li>• respondents reflect on their own perceptions and interpretations of QA portfolio programs</li> <li>• respondent and researcher construct reality of QA portfolio programs</li> <li>• respondent and researcher build upon previous knowledge of QA portfolio programs</li> </ul>	Constructivism
<ul style="list-style-type: none"> <li>• respondents describe how their college views members as adult learners</li> <li>• respondents explain the organization's philosophy of learning</li> <li>• respondents describe the benefits and challenges of self-directed learning portfolios</li> <li>• respondents outline how they respond to individual learning needs</li> </ul>	Humanism
<ul style="list-style-type: none"> <li>• stakeholders express their judgments and values</li> <li>• respondents provide a brief description of QA portfolio program (for example, program rationale and components of description matrix)</li> </ul>	Robert Stake's Program Evaluation Model

### *Participant Selection*

The individuals invited to participate in the semistructured interviews for this research study were drawn from a purposive sample of health regulatory college employees. A purposive sample is most often chosen in a qualitative research design, because the individuals selected by the researcher generate the most information required for the chosen topic within the framework of the specific study (Leedy & Ormrod, 2005). In order to maximize the available information regarding how Ontario health regulatory colleges design QA portfolio programs that meet learning needs and ensure continued competence, I selected individuals who are responsible for implementing QA portfolio programs in the regulatory college environment. As each college uses different position titles in its organizational chart, it was more important for the participants to hold positions of similar function and accountability to QA programming than to have the same professional title.

Although 22 colleges comprise the Federation for Health Regulatory Colleges of Ontario, organizations with similar membership sizes work more closely together as they manage new legislative initiatives and share similar issues in the health care environment. Moreover, colleges with similar membership sizes offer comparable services. Therefore, the participants selected in this study were from colleges that govern between 2,000 and 8,000 members. Purposively choosing individuals within these parameters created a cohesive sample of participants. I interviewed 6 individuals from two distinct groups.

Within the purposive sample, the first group was 5 health regulatory college administrators from different colleges who have at least 3 years' experience in QA program implementation. The preference was given to individuals who know the history



of the organization, thereby adding an extra layer of knowledge regarding QA program development and the preference of the portfolio as a tool to promote continued competence. It is important to note that even if an administrator did not know the evolution of QA program development for her college, the individual was nevertheless included in the study. I initially anticipated that there would be 6 participants in the sample group. However, only 5 returned the informed consent. A detailed description of the recruitment procedures can be found in the next section of this chapter.

The second sample group was comprised of 1 health regulatory college administrator who participates in the Federation for Health Regulatory Colleges of Ontario QA Working Group. This working group meets on a regular basis to discuss issues surrounding QA program development and implementation. This participant added a different layer of understanding regarding QA portfolio programs because she meets regularly with her colleagues and may thus possess a deeper appreciation of the current issues surrounding the effectiveness of QA portfolio programs. I accessed this participant through a colleague who participates in the QA working group and purposively selected an individual who met the predetermined criteria outlined above. Specifically, this individual came from a college with a membership between 2,000 and 8,000 but one that was not represented in the first sample group. The number of years the individual has been with her organization was not as important as for the first sample group. The selection of an individual from the QA working group establishes triangulation in this study when combined with the document review and interviews of the first set of administrators. I had originally intended that there would be 2 participants in the second sample group. However, only 1 responded to my telephone call.

### *Recruitment Procedures*

Using a telephone script, I formally contacted 8 participants by telephone after obtaining clearance from Brock University's Research Ethics Board (see Appendix C) and inquired if they would be interested in being part of the research study. Seven participants returned my telephone calls. These individuals were sent a Letter of Invitation and Informed Consent Form by electronic mail. I asked them to review the letter of invitation and consent form and return a signed consent form to me by facsimile if they wanted to participate in my study. Only 6 participants returned the consent form. Once I received a signed form, I contacted the participant by electronic mail to set up the date, time, and location of the interview. By adopting this strategy of selecting participants from two sample groups, I allowed the research to include individuals I did not know through my college connections, thus providing for more insights and perspectives to emerge.

### *Profile of Participants*

A total of 6 health regulatory college administrators participated in the interview portion of this study. All 6 participants were women from different colleges that govern between 2,000 and 8,000 members. The administrators' years of experience in the position ranged from 6 months to 7 years, and they were all responsible for the administration of QA programs.

### *Data Collection Instrument for Interviews*

The second data collection instrument that I developed is the interview protocol used for the interviews of health regulatory college administrators from both sample groups. The instrument begins with a chart designed to acquire information related to the

interviewee's position at the health regulatory college and the number of years of experience in the position as described by the eligibility criteria. The questions listed in the interview protocol target specific aspects of the effectiveness of portfolios. The questions ask the administrators to provide a brief description of the portfolio component of their QA program, the reasons why the portfolio was chosen by the organization, and finally how the organization identifies and responds to the learning needs of health care professionals. Then, after I conducted my first interview, it became apparent that the portfolio was only one component of quality assurance programs. Accordingly, I added a question that asked the participants to discuss the other components of quality assurance and the role that the portfolio played in relation to the other components.

#### *Data Collection Through Interviews*

The 6 interviews took place between May 2, 2007 and July 27, 2007. In order to assist in the interview process, I invited participants to choose the venue where the interview would be conducted. I offered to meet the participants at their place of business or, as an alternative, my employer offered the use of the small meeting room at my place of employment. By providing the participant with the venue option, I attempted to create an open environment that facilitated participation. All of the interview participants chose for me to travel to their place of business. I tape-recorded the questions and responses, and these were later transcribed.

Transcription is considered to be the process of converting audiotape recordings or field notes into text data (Creswell, 2005). The process of transcribing interviews can be lengthy and time-consuming. Accordingly, I transcribed the interviews with the assistance of a member of my family who had signed a transcriber confidentiality

agreement. I transcribed two of the interviews while my family member transcribed the remaining four interviews. In order to ensure reliability, I checked the accuracy of all the transcripts, including those which I had not transcribed, by twice listening to the tapes while reading the transcripts before these were sent to the participants to review. This process allowed me to establish familiarity with the data collected whether it was transcribed by me or the member of my family. Getting assistance with the transcription process provided me with more time for the analysis portion of this research study (Merriam, 1998).

During the interview, I also took notes and recorded them on my interview protocol sheet (see Appendix C). The interview protocol established structure for the interview and provided a space for me to record ideas and important statements that emerged from it (Creswell, 2005; Merriam, 1998). Each interview lasted between 30 and 60 minutes. Approximately 2 to 3 weeks after the interview, I sent each participant a copy of the transcribed interview to provide an opportunity to make changes or to clarify her statements. I sent the transcripts to the participants by electronic mail, and participants either made changes directly to the electronic document and sent it back to me or printed up the transcript and made changes to a paper copy that I picked up at their place of business. After each participant checked the transcription, I sent a letter thanking her for participating in my study. I provided a two-page summary of my findings after the data were analyzed and advised participants that the completed thesis will be available at the IRC and Brock University's Gibson Library.

*Data Analysis for Interviews*

Once all of the interview data were collected, I began the analysis of the transcripts to determine some of the issues surrounding the effectiveness of the learning portfolio component of QA programs of the selected health regulatory colleges.

According to Best and Kahn (2003), the preliminary step in the analysis phase of a qualitative study is to organize the data. This is an essential step in the analysis process, as qualitative studies with semistructured interviews yield a significant amount of data and information (Creswell, 2005). Accordingly, as all of the participants were asked the same set of questions, I found it useful to group the answers together and colour-code them to establish similarities and differences in the responses (Best & Kahn).

Following careful organization, the second stage of the analysis process was the coding and analysis where the data were divided into separate parts. “Coding is not what happens before analysis, but comes to constitute an important part of the analysis. There is a reciprocal relationship between the development of a coding system and the evolution of understanding a phenomenon” (Weston et al., 2001, p. 397). In order to create cohesive themes between the document review and the interviews, the first coding scheme that I used was comprised of the themes from the document review. Following the process described by Creswell (2005), I coded the data by identifying text segments, either sentences or complete paragraphs, and assigned code words that accurately described their meaning. After each interview that I coded, I made some adjustments to the coding scheme and then proceeded to code the next interview and then returned to the previous transcripts to apply the most recent version of the coding scheme. I developed five versions of the coding scheme and, with each version, the codes became more

precise as categories were collapsed with one another and new ones were created. I then selected one transcript to be coded by my thesis advisor and provided a copy of my coding scheme. Once I received the transcript coded by my advisor, I made some slight adjustments to the coding scheme once again. There was a high degree of correlation between the codes that I assigned the text and the codes assigned by my advisor. All of the versions of my coding scheme and the changes that were made are documented in my research journal. After all of the text had been coded, I compiled a list of code words and grouped them into categories. Some of the categories are the same as those that emerged from the document review, while others are unique to the interviews with college administrators.

The list of codes was reduced to eight themes that formed the major ideas concerning this exploration of self-directed learning and self-assessment in portfolios from an administrator's perspective. The themes created from the system of coding were then layered to include both major and minor themes, in addition to the a priori and emergent, allowing for more complex analysis of the data (Creswell, 2005). A complete listing of the eight themes which formed the layering of major and minor themes can be found in Appendix E.

Once the data collected from the interviews were coded, I analyzed them using the description matrix of Robert Stake's responsive evaluation model. The description matrix is comprised of intents and observations of educational programs (Stake, 1967). The data collected from the interviews filled parts of the description matrix and assisted in determining the rationale and some antecedents and interactions in the observations column. The interviews of health regulatory college administrators also helped to

identify the structure of the portfolio programs and some of the interactions that may be experienced by the individual learner as observed by the administrator. Although the interview respondents did not discuss the skills and abilities of individual learners, they did speak about the outcomes of the portfolio programs in general terms. They expressed how the portfolio provides members with ownership of learning and feelings of professionalism. Although these are not individual skills and abilities, they are achievements observed by the college administrators. For these reasons, the interview responses provided some of the outcomes of the portfolio programs. Figure 4, presented earlier, displays how the results from the interviews apply to the data matrix.

Creswell's data analysis spiral (as cited in Leedy & Ormrod, 2005) was a useful inquiry tool, as it helped to organize and synthesize data to inform the main research question. Through the process of classifying data, emerging themes were identified. By using the data analysis spiral, I was able to collate the interview responses and identify common subject areas as they related to the effectiveness of portfolios for QA programs.

The data collected from the interviews constitute the primary data source used for the analysis of selected QA programs of mid-sized health regulatory colleges in Ontario. The document review is considered a secondary data source that provided contextual details and more focused questions for the interviews with regulatory college administrators. I used my research journal as a tertiary data source in order to help to confirm or enrich some of the themes established in the analysis and to document the research process.

### Ethical Considerations

The ethical implications of a research study including human participants can be divided into four categories: protection from harm, informed consent, right to privacy, and honesty with professional colleagues (Leedy & Ormrod, 2005). The risk of harm for human participants should not be greater than the risks of daily living. The interview participants for this study of QA programs were not subjected to any harm, for the questions asked of them were related to their professional experiences. Moreover, the nature of the study was reviewed with each participant in the letter of invitation, and each was given a choice to participate. The letter of invitation outlined the purpose of my study and included the potential benefits of the study to the health regulatory college community with regards to QA portfolio program development. All participants signed an informed consent form prior to participating in the study and knew they could withdraw at any time.

The potential participant pool for this study was not large, so therefore there was a risk that responses could be attributable to individual participants. In order to minimize this risk, the interview questions were not specific to any health care profession or a QA portfolio program but were rather general questions associated with adult learning and the use of portfolios as a component of a larger QA program. In order to ensure each participant's right to privacy, the name and organizational affiliation of the participants are not included in the study. Moreover, if any response provided by a participant revealed the profession she regulates or included profession-specific language, these data were removed from the responses to ensure that the participant's answers cannot be linked to her organizational affiliation. Each participant was given a pseudonym to



ensure that identity would not be revealed in any portion of this study. I assigned an identifier to each participant (Participant A to Participant F) prior to conducting the interviews. All tape recordings and transcripts refer to the participants only by means of their identifier.

I have strived to present the results of this research in an honest fashion to ensure that the nature of my findings is not intentionally misleading to the Ontario health regulatory college community. As a health regulatory college employee, I have tried to ensure that my own beliefs regarding the use of portfolios as an effective tool to advance competence did not influence my presentation of the results. This research study presented some ethical challenges because of my positionality in the health regulatory college community hierarchy. I am currently considered to play a supporting role in an organization and do not have a management role as did my research participants. This differential power relationship presented some challenges for me because their professional roles are demanding so they had limited time frames for interviews and reviewing transcripts. This meant that my interviews were scheduled over a 3-month period, and it often required many reminders for transcripts to be reviewed and returned. In addition, the difference in power might have affected their comfort level in expressing ideas to a person not at their management level. Also, ethical issues may have emerged from the situation of being interviewed by someone from another regulatory college. I believe that if I had held a position of equal or higher authority in a health regulatory college, the time factor would not have presented itself as a problem and the respondents might have felt more comfortable communicating their opinions.

### Establishing Credibility

The procedures used in this study to establish credibility incorporated both internal and external measures. Internal measures involved the design of the study, the data produced, and subsequently the conclusions drawn and presented (Leedy & Ormrod, 2005). The study research design, in which data were collected from both a document review and semistructured interviews, provided data from multiple sources and established triangulation. The data collected during the interviews were reviewed and checked by the participants through a member checking procedure to ensure that the responses provided were accurate. In addition, the analysis portion of this study included thick and detailed description to allow the reader to draw his or her own conclusions from the data presented (Leedy & Ormrod). Moreover, after I coded the interviews, one interview was coded by my thesis advisor using the final version of my coding scheme. I then compared the codes used by my thesis advisor and made some adjustments to the emergent codes.

Equally important, this study has taken external measures into consideration. Although this is a study of QA programs of selected health regulatory colleges in a specific province, the conclusions drawn may be applied to other contexts where adults are engaged in continuous learning activities for professional competence or development. The focus of the health care environment is simply a contextual reference, but in more general terms this is a study of adults engaged in meaningful learning activities which include self-directed learning and self-assessment. Although the portfolio programs evaluated in this study of QA programs are in the Ontario health care

environment, the methods and perspectives adopted for evaluating the programs could be applied to other educational settings.

### Methodological Limitations

Limitations can be defined as the conditions present in a study that place restrictions on the conclusions of the research and on its applicability to other contexts (Best & Kahn, 2003). As previously mentioned, this study of the effectiveness of portfolios for QA programs of health colleges was conducted through a document review and interviews from an administrator's point of view. Although a generic qualitative research design, informed by case study methods was undertaken, the purpose of the study is to research a single phenomenon, somewhat limiting the results and conclusions (Creswell, 2005; Leedy & Ormrod, 2005; Merriam, 1998).

The implications of my decision to interview only administrators of health regulatory colleges determined that only one perspective of the overall effectiveness of self-directed learning and self-assessment for some QA programs is presented. The study does not include the perspective of health care professionals or those of the Ministry of Health and Long-Term Care who are integral stakeholders in QA programs. Moreover, by confining the study participants to those from colleges governing a similar membership size, the results may not be relevant or applicable to health regulatory colleges with a membership either smaller than 2,000 or greater than 8,000. An additional methodological implication concerning sampling is related to the document review. This methodological decision to review only portfolios of QA programs available on health regulatory college websites may have limited the results obtained, as

some colleges may have portfolio programs with self-directed learning and self-assessment initiatives but have not provided the information on their websites.

In addition, this study is concerned only with the portfolio components of QA programs with self-directed learning and self-assessment components. Therefore, the generalization of the conclusions may be too narrow to make statements regarding the overall effectiveness of QA programs of the provincial health regulatory college community. Although there are limitations present in this study, it is important to recognize that the conclusions drawn will still contribute to the field of knowledge regarding the effectiveness of QA programs of health regulatory colleges and may be able to address some of the gaps present in the current body of literature on the topic. The following chapter presents the results obtained from both the document review and interviews of health regulatory college administrators.

## CHAPTER FOUR: PRESENTATION OF RESULTS

The purpose of this study is to determine the issues surrounding the effectiveness of the learning portfolio component of Quality Assurance (QA) programs of selected health regulatory colleges in Ontario. QA programs have been established as a means to promote quality practice and continued competence. The results of this study are based on the data collected from websites describing 14 learning portfolio models currently being used by colleges of health care professionals in the province in combination with interviews of 6 health regulatory college administrators responsible for QA program implementation.

In order to organize the data collected for the document review, I developed a protocol comprised of several categories: general information, the mandatory or optional nature of a portfolio, portfolio design, types of learning and assessment in portfolios, and finally portfolio evaluation and member support. The data generated from the document review allowed me to describe the results in frequencies and percentages while at the same time discussing themes and identifying trends. I have used the description matrix of Robert Stake's responsive evaluation model to analyze the data from the document review because it includes the intents of an educational program (Stake, 1967).

I conducted interviews with 6 health regulatory college administrators to collect data to answer the research questions. Data were analyzed using the selected theoretical frameworks of constructivism, humanism, and Robert Stake's responsive evaluation model. The interview participants are from two sample groups. The first sample group is comprised of 5 health regulatory college administrators with at least 3 years of experience in QA program implementation. The second group consists of 1 administrator

who participates in the Federation of Health Regulatory Colleges of Ontario QA Working Group. The data collected during the interviews were taped and transcribed, and each participant was provided with a copy of the transcript to review, thereby providing each individual with an opportunity to make changes or to clarify statements. I have coded the data to establish the eight themes of (a) portfolio design, (b) types of learning and assessment, (c) other QA components, (d) portfolio evaluation and program maintenance, (e) benefits and challenges, (f) learning needs, (g) organizational needs, and (h) the relationship between competence and learning. The results were then analyzed using the description matrix of Robert Stake's responsive evaluation model (Stake, 1967). In particular, the observations portion of the matrix is helpful to categorize the perceptions of college administrators regarding QA portfolio programs. In this chapter, the results from this study have been separated into three main sections: (a) results from document review, (b) results from interviews, and (c) the application of the results from both data sources to Robert Stake's responsive evaluation model. The results from the document review and interviews are categorized to address the specific questions of this study and then combined to answer the main research question.

#### Results from Document Review

The results of the document review are classified into four main components: (a) portfolio design, (b) types of learning and assessment in portfolios, (c) portfolio evaluation and member support, and (d) additional observations. I have divided the results into these clusters in order to address some of the specific questions of this study. The results of the document review and the interviews were combined to answer the main research question.

The two categories of portfolio design and types of learning and assessment provide an overview of portfolio programs. They address specific question 2, concerning the guiding principles that were originally considered in establishing QA portfolio programs of the 14 health regulatory colleges reviewed at this stage of the study. In order to answer this question, it is essential to examine the design and framework of the portfolios in the colleges' QA programs. The topics under portfolio design are: (a) sequence of events involved in portfolio completion, (b) the characteristics of the portfolios, and (c) how learning is measured. The second component that contributes to our understanding of guiding principles is related to types of learning and assessment. These results are presented as: (a) philosophy of learning, (b) use of self-assessment, (c) use of self-directed learning, and (d) the description of learning activities.

The third component, portfolio evaluation and member support, addresses question 3 related to the evaluation and maintenance measures that health regulatory colleges use to assess the overall effectiveness of instituted QA portfolio programs. The results from this section provide insight on how colleges ensure that members actively engage and comply with the QA portfolio programs. This section describes: (a) random selection processes, (b) feedback provided to members, (c) program support made available by the health regulatory colleges, and (d) evidence of program evaluation. In addition, question 5 is also partially answered, as program support identifies what measures are put in place by colleges to assist members with self-directed learning initiatives.

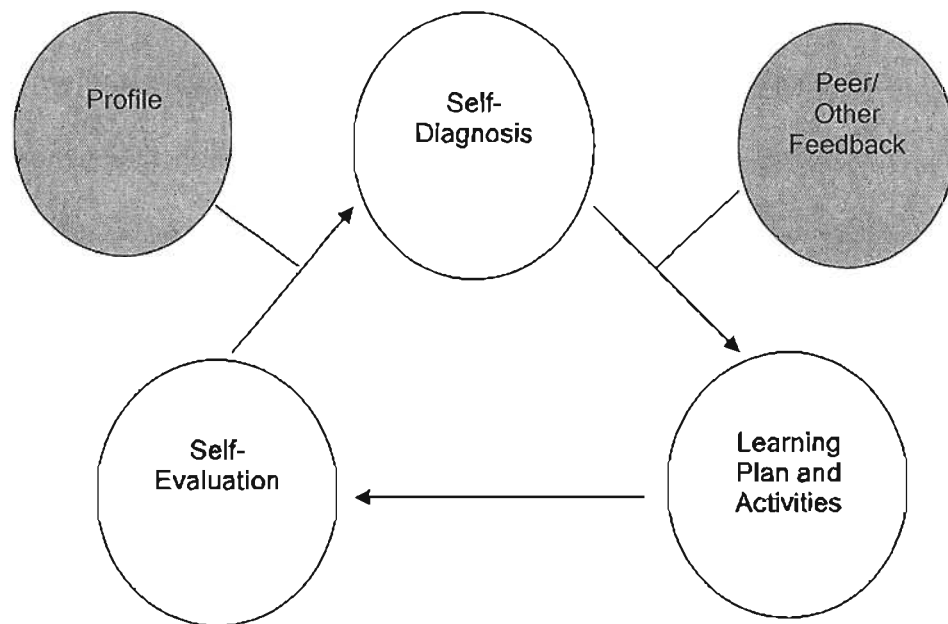
### *Portfolio Design*

The document review establishes that of the 14 portfolio models examined, all are mandatory for health care professionals to complete; none are optional. In many cases, the portfolio represents one component of a broader Quality Assurance (QA) program, but this particular component is compulsory for all members of a college, whereas a practice or on-site assessment is a requirement only if a member is selected to participate in a more detailed evaluation process.

For each of the health colleges under review, the design of the portfolios demonstrates the learning events that are present and how they are arranged to create a complete portfolio. The design of the portfolios can be categorized into three main components: self-diagnosis, learning plan and activities, and self-evaluation. These components are present in all of the portfolios reviewed. A cyclical pattern of movement from one stage to another becomes evident as a result of the analysis. This cycle is illustrated in Figure 5.

The pattern demonstrates that health care professionals complete a self-diagnosis or inventory of their knowledge and skills and identify the areas of their practice that require further improvements. Following this inventory, college members create a self-directed learning plan and select the learning activities they will engage in to carry out the goals of the learning plan. Finally, members evaluate their own learning and determine if they have met the objectives of their learning plan. In essence, after the member evaluates his or her learning, the cycle begins again with another self-diagnosis of the gaps of knowledge that need to be filled. The terms self-diagnosis and self-evaluation are not terms used in all of the portfolio models reviewed to describe these





*Figure 5.* Cycle of portfolio components.

two portfolio components in the cycle. Often these two phases are called self-assessment. However, in order to avoid confusion I have used the terms of self-diagnosis and self-evaluation to describe the two separate phases of the process for portfolio completion.

Two secondary aspects are also evident in the design of the portfolio models under review: member profile and peer feedback. Member profile can be defined as a resume, personal data, employment profile or the educational background of the health care professional. Nine of the portfolios reviewed include a phase that can be categorized as inclusion of a member's profile. Although peer/other feedback is present in only two of the portfolios reviewed, this process provides members with the opportunity to obtain reactions from other sources to help them identify the areas of their practice that are on target and those that will require further improvement. This feedback comes from performance reviews done by employers or evaluations provided by students and clients. Despite the fact that member profile and peer/other feedback are not evident in all of the portfolios evaluated, I feel it is essential to highlight them in the presentation of results because they are integral design elements of several portfolio programs. In Figure 5, the member profile and peer/other feedback stages are shaded, as they are not present in all of the portfolios and are therefore not as essential as the other three stages of self-diagnosis, learning plan and activities, and self-evaluation.

The health regulatory college portfolio programs can have as few as two or as many as six separate stages for portfolio completion. Regardless of how the programs have been sequenced or separated into different stages, all portfolio models include the three main components and one or both of the secondary components. In some cases,

two elements are present in one stage of the portfolio. For example, one of the portfolio designs includes a professional development log in which members document the learning experience, determine if it is related to the professional development plan, identify what they have learned, and assess what impact it has on their practice.

Although this professional development log is presented as one step, it includes both the development of a learning plan and self-evaluation, two of the main components present in the portfolios. At the same time, some portfolio models require two or three stages to complete one component of the portfolio. For example, one college has identified self-assessment as challenges and barriers to quality practice which are both components of self-diagnosis. Therefore, in some cases, the portfolio components are separated into different stages as health professionals are asked to complete separate tasks in order to complete one component of the portfolio. Table 2 provides a visual representation of the various types of sequencing of events in portfolio completion.

Each of the steps or phases of the portfolios is colour-coded to indicate both the main and secondary components and to show how, in some instances, two components can be present in one step of the portfolio process. The data are organized according to the membership size of the regulatory colleges.

Despite some of the differences among the various portfolio designs evaluated for the document review, all of the portfolios display a linear model of self-directed learning: reflection, development and implementation of a learning plan, and, finally, self-evaluation. As described in the literature review, linear models of self-directed learning are defined as a learner advancing through a series of steps in order to reach the desired goals set out in the individual learning plan (Merriam & Caffarella, 1999).

Table 2

*Sequence of Events in Portfolio Completion in 14 Regulatory Colleges*

Membership size	Sequence of events									
< 3000	MP	SD	SD		LPA	SEV				
		SD			LPA		LPA	SEV		
		SD	SD	SEV	LPA					
		SD			LPA	SEV				
3000-6000	MP				LPA	SEV				LPA
		SD			LPA	SEV				
		SD	SD	P/OF	LPA	SEV				MP
		SD			LPA	SEV				
6000-7000		SD	SD	SD	LPA	SEV				
		SD	MP		LPA	SEV				
7000-1000	MP	SD		LPA	LPA		SEV	MP		
		SD	SD		LPA	SEV				
> 10000					LPA		LPA	LPA	SEV	MP
		SD		P/OF	LPA		LPA	SEV		SD

**Legend**

SD	Self-Diagnosis
LPA	Learning Plan and Activities
SEV	Self-Evaluation
MP	Member Profile
P/OF	Peer/Other Feedback

All the portfolio models analyzed present characteristics of both working and presentation portfolios. As explained in Chapter Two, working portfolios are characterized as a large and complete collection of work over time that demonstrates strengths and weaknesses in addition to successes and failures in an individual's professional work. Working portfolios stimulate both reflection and self-assessment while displaying an individual's learning in progress (Kilbane & Milman, 2003). One's working portfolio could be more extensive than the requirements of one's health regulatory college and could include other forms of learning required by the employer. The portfolio models examined encourage health care professionals to engage in self-diagnosis and develop learning plans related to their roles in the health care system, a characteristic of a working portfolio as described by Kilbane and Milman. By engaging in a self-diagnosis of their current skills and knowledge, members are addressing the areas in their practice that require improvements, while choosing preferred learning activities, thus demonstrating both an individual's strengths and weaknesses. The portfolio designs reviewed do not have the successes and failures component found in working portfolios as defined by Kilbane and Milman. However, an individual's professional triumphs or disappointments may be inferred from the self-diagnosis and the selection of activities in the learning plan.

In contrast, presentation portfolios represent a subset of materials located within an individual's working portfolio. The items selected from the working portfolio may be chosen purposefully to reflect a set of standards or specific goals. In this case, presentation portfolios are considered to be evaluative (Kilbane & Milman, 2003). All of the portfolio models assessed have an evaluative component, as they are submitted to the

health regulatory college for review. It is possible that a health care professional in all of the portfolio designs examined can choose to submit the sections of his or her working portfolio that best reflect the requirements and goals of the Quality Assurance programs, but the inclusion of these sections is not a requirement.

Half of the portfolio models reviewed measure learning in units such as credits, hours, goals, or number of activities in a specific time frame. For example, a QA program will require 90 credits over a 3-year cycle, whereas another will specify 25 hours per year or two learning goals annually. Although it is difficult to compare these portfolio designs as their units of measure are different, it is important to identify the maximum and minimum requirements found in the websites. The maximum requirement is 60 hours of professional activities every 2 years, and the minimum requirement is one learning goal each year. The other half of the portfolio models analyzed did not provide specific measures for the required learning of their respective members. In one portfolio model, the documentation emphasizes the quality of learning as being more important than the quantity. The two distinct groups related to measurement of learning cannot be attributable to the size of membership. Rather, they are evenly distributed in the sample.

The document review also demonstrates that 13 of the 14 colleges require health care professionals to use some or all of the portfolio forms created by the colleges in order to complete the portfolio requirement. Only 1 college does not expect members to use the template forms; instead the organization encourages individuals to follow a format similar to that on the website in order to ensure that the key components are included in the portfolio. It is not surprising that the use of college forms is predominant,

as often this is a requirement set out in the Quality Assurance regulations of each health profession and it facilitates a consistent evaluation process (CMRTO, 2003).

In summary, the portfolio designs in the 14 regulatory colleges present both similarities and differences. All portfolio models follow the same sequence of events in portfolio completion, and this feature is the same as in linear approaches to self-directed learning: self-diagnosis, learning plan and activities, and self-evaluation. All of the portfolio models have characteristics of both working and presentation portfolios, while differences become apparent when evaluating how learning is measured. Half of the portfolio models reviewed use measurements of credits, hours, goals, or activities, while the other half do not provide any specific measurements. The majority of colleges require that members use college-created forms to fulfill the requirements of portfolio completion. These are important elements of the document review because they establish the framework of portfolios currently being used by health care professionals in Ontario that facilitates the description of the next two topics, types of learning and assessment and portfolio evaluation and member support.

#### *Types of Learning and Assessment in Portfolios*

The data collected in this section have made it one of the most difficult sections to analyze. Although all of the portfolio models reviewed use similar learning activities and portfolio processes, this section has required a more in-depth look at guiding principles and beliefs of learning that are more complex than the mechanics of portfolio composition. The types of learning and assessment in the portfolios are described in four sections: (a) philosophy of learning, (b) use of self-assessment, (c) use of self-directed learning, and (d) the description of learning activities.

The philosophy of learning or guiding principles of the QA portfolio programs are described on 12 of the 14 websites. Generally, the language used by health colleges to describe the philosophy of learning centers around the importance of health professionals as vital participants in the learning process. The portfolios are viewed as tools to engage members in the pursuit of continuous quality improvement. Moreover, the websites describe the portfolios as a mechanism for members to assess, plan, and record the learning that they are already engaged in on a daily basis. Specifically, two of the regulatory college websites note that the portfolio demonstrates professional growth and is a tool for life that will change with each health professional. Therefore, the philosophy of lifelong learning has been adopted to some degree by these two organizations. As previously described, lifelong learning is a shift of focus from education to learning and is highly responsive to the external environment (Thomas, 1998).

The philosophies of learning that form the basis of portfolio programs appear to vary. One of the college websites mentions that the philosophy and principles of the portfolio program are based on feasibility, reliability, appropriateness, and acceptability. By using these concepts as the pillars of the portfolio program, this health regulatory college is suggesting that its philosophy of learning is grounded in the technical paradigm. As described by Plumb and Welton (2001), the technical paradigm focuses on the ability of the learner to acquire accurate knowledge and act in a way that leads to desired changes in behaviour. This paradigm is based on an instrumental view of knowledge. On the other hand, another college describes Kolb's (1984) learning cycle and different learning styles. As described by Magro (2001), Kolb's learning cycle is based in the belief that the individual learner reflects on an experience in his or her



external environment and develops theories or conclusions. By including Kolb's learning styles in the portfolios program, the college is aligning with the constructivist perspective of learning. As previously described in Chapter Two, constructivism is described as a learning process where information is reorganized by the learner in order to understand new information presented from his or her surrounding environment. The websites of the remaining eight health colleges suggest that they have generally adopted a humanist approach to learning. These colleges have described the portfolio programs using humanist ideas including the importance of the individual learner. Moreover, these colleges describe the portfolio as a tool for individuals to document their self-directed learning activities. By focusing on the individual learner and recognizing diverse learning needs and goals, these eight colleges have aligned their philosophy closely with the humanist perspective. The remaining two colleges in the sample do not describe their philosophy of learning or the guiding principles of the program.

All of the websites evaluated require two stages of self-assessment in order to complete the portfolio. The initial self-assessment or self-diagnosis means that health care professionals assess their current level of competency and identify areas of practice that require growth and enhancement. Most often, the self-diagnosis is based on professional standards, essential competencies, or behaviour statements in comparison to which members identify both strengths and weaknesses in their practice. Ten colleges from the sample use a rating system for members to identify their current level of knowledge and expertise compared to the standards of practice for the profession. For example, one college's rating system is (a) benefit from assistance, (b) feel comfortable, (c) particularly strong, and (d) not encountered. Two colleges use the same rating scale

which includes (a) expert, (b) highly developed, (c) refining, (d) developing, and (e) not applicable. The remaining four websites outline self-diagnosis as a more open process where members reflect on their professional roles or past experiences and identify areas for development. The self-diagnosis is used to develop a learning plan and guides members to engaging in activities that will address the needs identified by the individual.

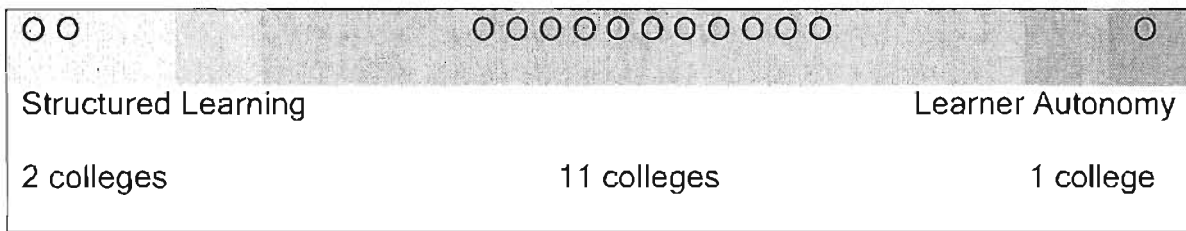
The second stage of self-assessment or self-evaluation occurs after the learning plan has been executed. Members evaluate their learning and determine how it has helped them to improve their practice as a health care professional in Ontario. Four of the colleges use a rating system for members to assess their learning. One portfolio lists outcome codes such as (a) plan to change practice, (b) plan to pursue additional information, (c) no change needed, and (d) findings reaffirm knowledge. The remaining colleges from the sample ask members to describe their own thoughts and reflections about the learning process and how it has assisted them in improving their practice. This second stage of self-assessment or self-evaluation completes the cycle of learning and informs a new cycle of learning with associated learning objectives and goals for the following year. Boud (1995) asserts that assessment is the most significant trigger for learning. Every act of assessment should provide the learner with a message regarding what he or she should be learning in addition to the appropriate strategies required for attaining desired objectives. Therefore, self-assessment within the cycle of portfolio completion is crucial because it is present in two distinct stages, at the beginning in the form of self-diagnosis and at the end of the cycle in the form of self-evaluation.

All 14 portfolios use self-directed learning in some capacity in the learning plan and the selection of associated learning activities. As previously described, the definition

of self-directed learning being used in the context of this study refers to a process-oriented explanation that focuses on a sequence of steps: reflection, development of a learning plan, implementation of the learning plan, and finally, self-assessment (Merriam & Caffarella, 1999; Slusarski, 1994). Based on their diagnosis of their learning needs, members develop a plan to improve their practice and select which resources would best achieve the desired results. Health care professionals are encouraged to identify their preferred learning style and choose activities that they feel would work best for them, taking into account both time and resources. It is important to note that even if portfolio models have a prescribed list of learning activities or a minimum number of required hours of professional development, there are still opportunities for members to be self-directed and create unique portfolios that represent them as adult learners. Whether the opportunities for self-direction are limited or extensive, the opportunity is present in all of the portfolio designs examined in this study.

In order to conceptualize how different colleges have created opportunities for self-directed learning, Figure 6 demonstrates how the 14 college portfolio models reviewed are distributed on a self-directed learning continuum, from a highly structured learning scenario to full learner autonomy.

The two colleges on the far left in Figure 6 have elements of self-directed learning but are very structured, with limitations on learning activities and appropriate topics for learning. The single college on the far right of the continuum has a high level of learner autonomy and therefore more opportunities for self-directed learning. The other 11 colleges fall somewhere in the middle of the continuum.



*Figure 6: Types of self-directed learning in portfolio designs of 14 regulatory colleges.*

Despite the distribution along the continuum, all of the portfolios are a process-oriented model of self-directed learning (Merriam & Caffarella, 1999). The college placed on the far right of the continuum would be considered to be an interactive model of self-directed learning, as it is not as structured as the linear model. The bulk of the portfolios represented in the center of the continuum would be considered classic linear approaches to self-directed learning as proposed by Tough in 1971 and Knowles in 1975: The learner advances through a series of steps to reach the desired goals in the learning plan. In contrast, it appears that the two portfolios depicted on the far left of the continuum closely resemble an instruction model of self-directed learning because this model requires greater control of the learning process with an integration of self-directed learning principles (Merriam & Caffarella). The degree of learner autonomy in the learning process is a feature of a humanist orientation to learning (Merriam & Caffarella). Based on the distribution of portfolio designs along the self-directed learning continuum, it would appear that all but two of the colleges exhibit a strong humanist orientation.

All the portfolio models considered describe the learning activities health care professionals can engage in to meet the legislative requirements of the QA portfolio programs. The learning activities are separated into two distinct categories: learning activities with limitations and learning activities as guidelines. Learning activities with limitations are categories of accepted learning activities that have been assigned specific values in hours, points, or credits. The listing of learning activities and associated values establishes an outline for members to follow when completing the portfolio. Therefore, there are set limitations on the number of hours or credits that can be utilized in specified categories. For example, one college separates learning activities into two categories.

Category A learning activities are directly related to the scope of practice and self-assessment competencies of the profession. In contrast, Category B activities are defined as complementary to the profession but not considered part of the scope of practice. A total of two thirds of the learning activities must be from Category A while the remaining third can be from Category B. This type of categorization places a high level of importance on certain activities and topics of interest.

In contrast, learning activities as guidelines are a set of possible learning activities that members can engage in to fulfill the learning plans or objectives of the QA portfolio program. Within this category, there are no restrictions placed on learning, and the list of activities acts as a resource for health care professionals instead of establishing boundaries on learning. Of the 14 portfolio models examined, 3 can be categorized as having learning activities with limitations while the remaining 11 have learning activities as guidelines. The data suggest that the trend is for health regulatory colleges in Ontario to have portfolios with few limitations regarding learning activities, thus promoting freedom and individuality for members in their professional learning.

An aggregate profile of all possible learning activities from the portfolio models examined demonstrates how the activities can be categorized into formal, nonformal, and informal learning (see Table 3). As can be seen in Table 3, the list of activities illustrates the broad variety of learning possibilities accepted as proposed by the health regulatory colleges under review.

As previously outlined, formal learning takes place in educational institutions and results in the acquisition of credits, degrees, or diplomas. In contrast, nonformal learning is characterized as organized activities that occur outside educational institutions, while

Table 3

*Aggregate Profile of Learning Activities*

Category of learning	Learning activities
<b>Formal</b>	<ul style="list-style-type: none"> <li>• degrees</li> <li>• diplomas</li> <li>• courses</li> <li>• qualifications</li> <li>• research</li> </ul>
<b>Nonformal</b>	<ul style="list-style-type: none"> <li>• workshops</li> <li>• seminars</li> <li>• conferences</li> <li>• in-service education</li> <li>• reading/journal clubs</li> <li>• recertification</li> <li>• structured self-study/distance learning</li> <li>• audio/video/CD learning modules</li> <li>• professional enhancement programs</li> <li>• training courses</li> <li>• seminar/conference presentations</li> <li>• clinical rounds</li> <li>• mentoring</li> <li>• supervising</li> </ul>
<b>Informal</b>	<ul style="list-style-type: none"> <li>• critical incident analysis from everyday experiences (Aha! moments)</li> <li>• memberships</li> <li>• learning from patients</li> <li>• personal experiences</li> <li>• discussion with colleagues</li> <li>• reviewing books, websites, journals</li> </ul>

informal learning is the collection of everyday experiences that result in an individual learning something of interest (Merriam & Caffarella, 1999).

In summary, the types of learning and assessment in the 14 regulatory colleges provide an in-depth look at the guiding principles and beliefs concerning learning. Generally, the websites reviewed show that the majority of colleges have adopted a humanist approach to learning while others have connections to lifelong learning, the technical paradigm, and Kolb's learning cycle. Despite these differences in regards to learning philosophies, all of the portfolio models contain two states of self-assessment: self-diagnosis and self-evaluation. Similarly, all of the portfolio models use self-directed learning, whether these opportunities are limited or allow for complete learner autonomy. The majority of portfolio models reviewed have learning activities listed as guidelines, while a few have learning activities with limitations that establish both boundaries and restrictions to learning. This section of the document review has thus addressed the guiding principles of the portfolio component of QA programs and complements the overall understanding of the issues surrounding the effectiveness of learning portfolios as a means to promote quality practice and continued competence.

#### *Portfolio Evaluation and Member Support*

The results of the document review under the category of portfolio evaluation and member support are presented in four sections: (a) the random selection process of portfolio submission, (b) the feedback provided to members, (c) program support, and (d) evidence of program evaluation. As described in the methodology, the document review did not yield substantial results regarding the process of selecting portfolios for review, an essential component in answering the research questions. Accordingly, more specific



data were collected in the interviews of health regulatory college administrators and can be found later in the chapter in the presentation of results from the interviews. All of the websites examined indicate that portfolios are submitted and reviewed each year, most often using a random selection process. However, I did not find the details surrounding the selection processes on the websites. Only 4 of the 14 colleges note the number or percentage of members selected each year to submit their portfolios for review. In the 4 colleges that do provide this information, the percentage is from 5%, to 8%, to 10%, to 100%. The colleges that disclose this information are among the smallest colleges in the sample.

Of the 14 portfolio models evaluated, 6 do not include information regarding the feedback provided to members who submit their portfolios for review. The lack of available information regarding feedback does not imply that such feedback is not a crucial component for members who submit their portfolios. It is simply that the documentation is not available on the college websites. The remaining 8 colleges provide two methods of feedback to members regarding their learning portfolios. The college that reviews 100% of the portfolios provides members with an aggregate profile of the profession based on the portfolios submitted. This collective report identifies common learning goals and trends in the membership profile. Although this is not individual feedback, it does provide members with a summary of the portfolios reviewed and allows members to assess themselves by comparing their profile with the aggregate in the report. The other 7 health colleges provide feedback to members on an individual basis. Individual feedback can be categorized as standard or descriptive. Only 4 colleges provide feedback to members using a standard format. Examples of standard feedback

include whether a member is compliant with the program, if the portfolio submitted is complete, or whether the member meets the expectations of the portfolio program. In contrast, 3 colleges use descriptive feedback to communicate with their members. Descriptive feedback includes individualized comments regarding their submission such as tools to help members define and accomplish learning goals.

The types of program support available to members in completing the portfolio component of the QA program can be grouped into seven categories: (a) a user's manual or guide, (b) exemplars or samples, (c) frequently asked questions, (d) glossary of terms, (e) resources and references, (f) learning cycle and learning style descriptions, and finally, (g) workshops. Table 4 summarizes these results. Types of program support are arranged in clusters of colleges defined by membership size.

All 14 portfolio models assessed contain a user's manual that describes the portfolio and how it is to be used and completed by the health care professionals in each college. Exemplars or samples of completed QA portfolios are present in 8 of the 14 portfolios reviewed and are more common in the colleges with larger memberships. A total of 9 of the 14 portfolios include a section of frequently asked questions that relate to program requirements, reasons for self-assessment and self-directed learning, and the use of forms. Only 2 portfolios provide a glossary, and 3 include a description of the learning cycle or learning styles. Both of these features are prevalent only in larger colleges. Several of the portfolio models reviewed (79%) contain resources and references for members, including suggestions on how to create learning goals and corresponding learning activities, flowcharts of the QA program, ideas, fact sheets, and reference materials such as journals, professional portfolios, and websites. Only 1 college website

Table 4

*Summary of Available Program Support*

Membership size	Manual	Exemplars	FAQs	Glossary of terms	Learning cycle/ styles	Resources & references	Workshops
< 3000							
	X					X	
	X		X				X
	X	X	X			X	
	X		X			X	
3000 - 6000							
	X	X					
	X					X	
	X	X				X	
	X	X	X	X		X	
6000 - 7000							
	X		X			X	
	X		X	X	X	X	
7000 - 10000							
	X	X	X			X	
	X	X	X			X	
> 10000							
	X	X	X		X	X	
	X	X			X		
TOTAL	14	8	9	2	3	11	1
	(100%)	(57%)	(64%)	(14%)	(21%)	(79%)	(7%)

provides workshops for members on the purpose of the portfolio and how to use it.

These results are not meant to imply that program support such as workshops is not available upon request, as the data collected reveal only the program support described on the website.

The review of the portfolio documents also provides some evidence regarding the ongoing evaluation of the 14 QA portfolio programs. Table 5 provides a visual representation of the availability of data on QA program evaluation. A total of four websites provide details concerning the evaluation efforts of health regulatory colleges. For example, two colleges use surveys to capture the members' experiences with the portfolios to ensure that the resources and tools are continually evaluated and improved. The recent achievements of the QA program are available on 1 of the websites reviewed, which chronicles how the portfolio program has been developed, distributed, and piloted since its inception in 2002. Another college website describes the historical evolution of the use of portfolios from a credit-based system in the late 1990s to a process that resembles a portfolio comprised of a learning plan and associated learning activities. This historical account demonstrates how the portfolio program has evolved and matured over time and the changes that have been implemented in the last 7 years. On four other websites, the evaluation of the program is implied, as the documents detail which version of the portfolio is currently being used by the membership or how often the portfolio documentation has been published. For example, one college notes that the portfolio documentation has been published every four years since 1998. The remaining six websites do not detail program evaluation measures or initiatives. However, these data do not necessarily mean that the health regulatory colleges are not engaged in program

Table 5

*Availability of Data on QA Program Evaluation*

<b>Availability of data on program evaluation</b>	<b>Number of colleges</b>
Details of how program evaluation is conducted (e.g., member survey, history)	4
Program evaluation implied but not described	4
No indication of existence of program evaluation	6

evaluation, just that such measures are not detailed in the available documentation. More information on program evaluation is presented in the results of the interviews with health regulatory college administrators later in this chapter.

Although the document review did not provide substantial results in all of the themes within portfolio evaluation and member support, valuable information was still obtained. Portfolio evaluation and member support address question 3 related to the evaluation and maintenance and question 5 regarding the assistance with self-directed learning and self-assessment initiatives. All of the colleges within the sample indicate that portfolios are submitted and reviewed each year, but details regarding the selection process are limited. The percentages of members selected each year range from 5% to 100%, but these results were disclosed by only the smallest colleges from the 14 reviewed. Just over half of the portfolio models reviewed provide feedback to members who submit portfolios. The majority of these colleges provide individual feedback that is presented in a standard or descriptive format, while only 1 college provides an aggregate profile of the college membership. All of the colleges provide program support in the form of a manual for portfolio completion. Other popular program supports include exemplars, frequently asked questions, and references. A total of 8 websites provide details regarding ongoing evaluation efforts of the organization concerning the portfolio. Evaluation measures included member surveys, the evolution of QA programs, and version numbers on QA documents to show the evolution of revisions and updates. These preliminary results from the document review are enhanced by the responses provided by health administrators in the results from interviews which appear later in this chapter.

*Additional Observations*

The review of QA portfolio programs as described on college websites provides some findings that were not originally expected in the document review protocol that I initially developed. One of these observations is that seemingly static documents offer insights into different health professions and their roles in the health care system. The documents describe educational requirements, practice settings, professional culture, business processes, and possible daily activities of different health professionals in Ontario. They also provide a profile of health care professionals, demonstrating that static documents can give a voice to health professionals and that websites can be a powerful method of communication. The document review gives me a greater understanding of the complexity of the knowledge, skills, and judgment required of health professionals in Ontario. This finding has reinforced the importance of conducting the document review prior to the interviews with health regulatory college administrators as it provides a frame of reference regarding the professionals they regulate.

An additional observation is the widespread use of the SMART goals framework. Half of the 14 portfolio models analyzed reflect the choice of SMART goals as a way for colleges to assist members in developing learning outcomes. The acronym SMART means that the goals should be specific, measurable, attainable, realistic, and timely. Many of these elements are found in a behaviourist or technical view of teaching and learning. As described by Plumb and Welton (2001), the technical perspective is based in the guiding principles of efficient control and objectified reality. Accordingly, learners are to act in a way that brings about desired changes in behaviour. The technical perspective is a favoured method in competency-based learning processes. Similarly,

within the behaviourist paradigm, assessment is based in the demonstration of a changed behaviour in accordance with predetermined behavioural objectives (Scott, 1998). By asserting that health care professionals should develop SMART goals, there is an underlying sense of control over the types of learning goals that are developed, ensuring the establishment of desired objectives. In contrast, the humanist perspective assumes that humans have a natural capacity for learning and that the process of education is controlled by the individual learner rather than a facilitator or teacher (MacKeracher, 1996). Therefore, the development of learning goals in a humanist perspective would not be guided by a governing body such as a regulatory college but rather by the individual learner.

Overall, I have observed how each college organizes the information on the website for Ontario health care professionals. With each website that I reviewed, I also tried to look at the information from the perspective of a member who would be required to complete the portfolio. Some of the websites are very well organized and the information is easy to obtain. On the other hand, some portfolio programs are not easy to access and the descriptions are so complex that the task appears quite overwhelming. This exercise has provided me with the opportunity to step outside the role of a health regulatory college employee and view the information from the perspective of a member. What emerges from taking on the perspective of a member is the need for and importance of clarity, organization, and ease of use in website navigation.

The additional observations section of the document review has provided me with the opportunity to share my unexpected findings from the evaluation of health regulatory college portfolio programs from the websites reviewed. This section assists in answering



question 2 regarding the guiding principles of portfolio programs, through the discussion of the distinct nature of health care professions and the use of SMART goals. The strong presence of SMART goals suggests that there are dual philosophies of learning present in the portfolio designs. While the majority of the colleges have adopted a humanist perspective to learning, they include SMART goals, which are found in behaviourist and technical ideologies. The idea of dual philosophies will be addressed in the results from the interviews with college administrators. The additional observations section of the document review also provided me with the opportunity to share my perceptions of the college websites. I was able to look at the portfolio models and the supplementary documentation with a fresh perspective and ascertain if the information was easy to access and well organized, thus providing me with some additional insights into some of the issues surrounding the effectiveness of learning portfolios.

### Results from Interviews

A total of eight themes emerge through the interviews with health regulatory college administrators. Several of these themes have been previously addressed in the presentation of results from the review of QA portfolios from college websites, while other themes are exclusive to the discussions with administrators. Although some of the concepts have been discussed before, the interview responses provide more depth and detail to the themes as they are examined through the specific perspective of college administrators. Although interconnected, the themes will be considered in separate sections that together provide an overall picture of the effectiveness of portfolios in the context under study. The eight themes are: portfolio design, types of learning and assessment, additional QA components, portfolio

evaluation and program maintenance, benefits and challenges, learning needs, organizational needs, and finally, the relationship between competence and learning.

### *Portfolio Design*

Each college administrator was asked to describe the design of the portfolio component of the QA program that she manages. The administrators identified the cycle of components that comprise the portfolio. These are the same stages for portfolio completion as outlined earlier in the presentation of results from the document review. Portfolio design can be summarized into the three components of self-diagnosis, learning plan and activities, and self-evaluation. The purpose of the self-diagnosis or inventory of knowledge and skills is for the member to identify areas of his or her practice that require further enhancement. Participant F describes the self-diagnosis in terms of standards and performance indicators:

There's a self-assessment tool and it's based on five professional practice standards, and for four of those standards, there are five to six performance indicators and the members need to rate their level of compliance with those performance indicators.

Participant B offers a similar description of the initial phase of the portfolio:

The first part is reflecting on professional standards and indicators for professional standards. The second part of the tool is really based on barriers to practice, and again it is part of self-reflection.

This administrator highlights the reflective feature of the self-diagnosis, in contrast to Participant F, who focuses on the standards provided by the college. The self-diagnosis is the launching point of the portfolio, and then health care professionals create a self-

directed learning plan and choose learning activities to execute the plan. Participant D emphasizes the many choices available for members to achieve the objectives of their learning plan.

It's actually a learning plan, so they have their goals and their sources of where they would get their learning activities from, so it doesn't have to be seminars, continuing education, it can be internet, it can be journals, some peer learning.

The final building block of the portfolios is for members to evaluate their own learning and determine if they have met the goals that they initially created in their individualized plans. The discussions with college administrators identify that the self-evaluation phase may begin immediately following the completion of the learning activities or can take place the following year after a longer period of personal reflection. Participant D describes the self-evaluation process of completing the portfolios as the following:

And then the next part is a report on learning, so the next stage would be how they summarize their activities into what they have learned, what they wish to apply to practice, and then they comment on whether they feel they have achieved their goals.

Participant B emphasizes the year-long cycle of portfolio completion and highlights how self-evaluation feeds the self-diagnosis for the completion of the portfolio.

The next part of the tool is where [specific health professionals] reflect on professional goals that they set the previous year. Every year [specific health professionals] are asked to set two goals, and then the next year they're asked to reflect on those two goals, and reflection on the goals means: "Did I complete the goals?" "What do I need to achieve the goals?" "How am I going to

demonstrate that I've actually completed this goal if asked, and how am I going to use this goal in order to improve patient/client care?"

The administrators confirm the cyclical nature of portfolios as discovered through the document review portion of this study. Further, the administrators describe the importance of each stage of the portfolio and how each component is dependent upon the results of the previous one.

Some of the college administrators identified the importance of additional portfolio components such as member profile. As described in the results from the document review, the member profile can be a resume, employment profile, or other personal data that provide a summary of the health care professional. Participant D notes the relationship between this activity and the broader goal of providing quality care to patients.

At the beginning we look at employment history, we look at education history.

We ask them to describe a typical day so that they are describing what they do in each practice that they work, and included in that we are looking at the delivery of care, we're looking at scope of care.

Participant F emphasizes that the member profile is not a mandatory element of the portfolio but one that is encouraged by the regulatory college, as it provides a place to keep achievements and assists in the self-diagnosis and self-evaluation phases of the portfolio.

Some of the elements that we encourage them to keep in this—their resume, their CV, the diplomas and university transcripts and, so-on—to keep it in one location,

and then any achievements or awards they have received. And again it is helping them to reflect on their past experiences in education.

This particular quote by Participant F demonstrates how the varying components of the portfolio are interconnected with one another. The member profile is not only a tool for organization, but it also assists with self-diagnosis and self-evaluation as members can review their artifacts to remind them of their past learning and help to guide future professional goals. In addition, a member profile when used in this way contributes to the concept of the protean career. The member profile documents learning experiences and identifies transformations that play a part in the overall character of the individual (Weick, 2001). The member profile provides health care professionals with a space to collect their continuous learning activities, an activity which further promotes a protean career and the goal of psychological success (Hall & Moss, 1998).

The interviews with college administrators regarding the design of the portfolio add a human voice to the documents evaluated in the document review. Although the same components of self-diagnosis, self-directed learning plan and activities, and self-evaluation are identified, the interviews help us understand why some of the components were chosen. The administrators' responses demonstrate the importance of all the components of the portfolio design, whether they are viewed as primary or secondary elements. The results regarding the portfolio design help to establish the basic framework of portfolios in Ontario and form the foundation of the following sections which answer the main research question and many of the specific questions.

*Types of Learning and Assessment in Portfolio Designs*

The college administrators' perspective on learning and assessment are described in three sections: the philosophy of learning, use of self-assessment, and use of self-directed learning.

All of the interview participants affirm that their organization incorporates a philosophy based on the guiding principles of adult learning in their QA programs. The responses confirm the data obtained from the document review, as the college administrators also discuss lifelong learning and individual ownership of the learning process. Participant C describes the principles:

I think from adult learning principles we have done because we've really tailored it so they get to do whatever they want and we don't tell them what they need to include.

The above quote suggests that the flexible nature of the program allows members to control the learning process and formulate a learning plan that is suitable for their individual needs. Participant D adds that the portfolio is designed in such a way as to enhance lifelong learning:

And so we hope that it encourages them to be lifelong learners. You know, the relevance to what they are learning impacts their practice and is meaningful.

These comments by college administrators mirror the information on the websites analyzed in the document review that described health professionals as important participants in the learning process. The responses of the college administrators support the idea that a philosophy of lifelong learning has been adopted by some health colleges as there is a shift of focus from education to learning (Thomas, 1998).

As in the results of the document review, some of the college administrators describe the philosophy or guiding principles of their QA program by using language such as feasibility, reliability, appropriateness, and acceptability. Terms such as reliability and acceptability are closely aligned with the technical paradigm or transmission perspective. As described by Pratt (1998), the transmission perspective is a long-standing perspective on teaching, and the belief is that knowledge and procedures can be transmitted to the learner and the content should be presented with efficiency and accuracy. Participant E describes the philosophy as:

I guess the philosophy would be self-directed, goal oriented, that there needs to be an evaluative component. I think the other principle was that it would be formative.

It is important to highlight the apparent contradictions as the respondent has used both self-directed and goal oriented in the same sentence to describe the philosophy of learning. At a first glance, the dual philosophy of the technical and humanist paradigm within the same framework of a portfolio program appears to be a contradiction.

However, it can be viewed as a reflection of the dual forces that exist in health care. A health care professional's training consists of the acquisition of technical knowledge of the sciences while adhering to standards and accountability to the public. These qualities are coupled with a caring approach that is found within the humanist paradigm. Similar contradictory ideas are offered by Participant B, who explains that the QA portfolio program principles are member responsibility for individual learning, accountability to the standards of practice, as well as many other qualities that are related to both ethics and objectivity.

Adult learning principles, yes, we wanted them to reflect adult learning principles.

Members are responsible for maintaining their own knowledge and skills.

Members are accountable to practice according to the QA Regs and any standards of the College. It should also be objective, valid, explicit, and ethical.

Once again, the philosophy described by this participant appears to have both humanist and technical elements. The presence of the two opposing philosophies of learning parallels the types of knowledge and skills that are inherent in the health professions. I believe that these dual forces are also present within a regulatory college, as there are regulations to follow and processes that need to be carried out with precision. At the same time, there is a humanist side, as colleges have created QA programs with attention paid to the individual learner. The responses offered by these 2 participants suggest that the philosophy of learning is grounded in the technical paradigm where the focus is on the ability of the learner to acquire accurate knowledge and act in a way that leads to desired changes (Plumb & Welton, 2001). At the same time, there is a focus on humanist values to learning such as the need to be ethical and just in combination with individual ownership of the learning process (Plumb & Welton).

All of the college administrators stress the importance of self-assessment in the process of completing the portfolio. As in the results of the document review, all of the interview respondents describe self-assessment in two different stages. The initial phase of self-assessment is for members to self-diagnose their strengths and weaknesses in order to create a learning plan and choose corresponding learning activities. Some of the administrators explain that the tools created by their regulatory colleges to assist



members with the self-diagnosis process are based on standards or key competencies of the profession. Participant A describes the self-assessment tool as

based on the Standards of Practice, so they can look at their strengths or opportunities for improvement, and our Standards of Practice have five sections, and so under each section they should be setting a goal.

According to Participant F, the initial phase of self-assessment is the catalyst for the portfolio as it generates the following components of the portfolio.

It goes through a list of questions and explains what they are expected to do at the end of the self-assessment, which is to identify what their learning needs and/or any follow-up action for each competency, and we have them rate it there.

It is the initial phase of self-assessment or self-diagnosis that propels members into the development of a learning plan and associated activities. Participant F suggests that a self-assessment may not be required annually provided that a member's practice setting does not change substantially from year to year. In this case, the frequency of a self-diagnosis has been decreased to accommodate the needs of the membership.

The self-assessment tool is done now every 2 years; we used to do it yearly, but we found that their practice didn't change substantially and that their self-assessment was not changing as much. (Participant F)

Self-directed learning is another term commonly used by the college administrators to identify the type of learning that is encouraged through the use of the portfolio in QA programs. Although none of the interview participants defined the terms within their responses, their responses lead me to believe that the definition of self-directed learning being used within this context refers to the learner's assumption of

responsibility for planning, implementing, and evaluating a learning experience or a series of experiences (Brockett, 1985). Participant A describes the portfolio at her regulatory college as quite flexible and recognizes that education looks different for each member.

It's a guideline on what activities they can do, the introduction starts with that; we realize that education can take many forms and, it's up to them to be able to decide where the direction and how much they should be doing on that.

(Participant A)

Similar ideas are presented by Participant F, who describes the process of completing the portfolio as complete control by the individual learner to establish the learning goals that are appropriate for his or her needs.

I need to obtain more learning in this area, then maintain that as a record of a learning goal or as an accomplishment and materials to document your learning.

The interviews with college administrators were examined in three sections: the philosophy of learning, use of self-assessment, and the use of self-directed learning.

Once again, the examination of the philosophies of learning established that learning perspectives range from technical to humanist, and some even contain elements of both.

This blending of paradigms demonstrates the combination of skills required of health professionals. All of the college administrators stress the importance of self-assessment and self-directed learning in the completion of learning portfolios. Both of these activities ensure that learning goals and activities are appropriate for each individual learner, which reinforces the uniqueness of each health professional and of his or her pursuits of continued professional learning.

*Other QA Components*

Portfolios represent only one component of QA programs for health professionals in Ontario. In designing the interview plan, I felt that it was important to ask administrators to describe the additional components in order to establish the complexity of QA programs and to distinguish the role of the portfolio within a larger framework of quality assurance. The relationship between the portfolio component and other QA processes adds an additional layer to understanding some of the issues surrounding the effectiveness of portfolios in promoting quality practice and continued competence. Through the interviews with college administrators, I have been able to ascertain that the additional components of QA programs can be categorized as prescriptive learning activities and practice assessments.

Three of the college administrators describe prescriptive learning activities as learning modules or multiple-choice questionnaires that members complete either annually, every 5 years, or if randomly selected to participate. The content is controlled by the regulatory college and is often related to regulations, standards of practice, or current initiatives in the health care community. The defining characteristic of prescriptive learning activities is the predetermined content and the objective for the learner to arrive at the preset outcome. Participant F explains prescriptive learning activities as

a self-study module. It focuses on a piece of legislation or practice issue or practice standard or competency and how it applies to practice, how does it apply to different practices, and questions for them to consider.

Participant B explains how these learning modules are tailored to different practice settings to ensure that the questions are relevant to each member and reflect the diverse employment environments of the profession. She defines the varying models as follows:

We have three different versions. So if you are a member in a clinical practice, in other words you see patients for one-to-one intervention, you write one version.

If you are someone who has a private practice where you see people for individual counseling, there's a slightly different version, and that version includes some questions on being a health information custodian and/or information officer, and if you're not in any one of those categories and you work in with the government, Health Canada, you have a very general version.

Although these prescriptive learning components are narrow in content, they do provide members with opportunities for further development in varying aspects of their profession. One college administrator explains that these prescriptive learning activities not only provide the member with the correct answers but also propose the logic and reasons to support the correct answer.

It's intuitive and interactive, so at the end, when they actually press that submit button, they actually know right away how they did. So they get an email back saying this is how many you got wrong, and they can actually go and look at the right and wrong answers, so if they had 10 out of the 50 wrong, those 10 questions will tell them what they answered and why it was wrong, and then the other three distracters that were there, or whatever the one right answer, the key, why it was right and why the other 3 were wrong. (Participant C)

The outcomes of prescribed learning activities may provide members with future learning goals that could be explored within the structure of their learning portfolios. The learning modules help members identify areas of their practice that require further development and may play a role in the self-diagnosis of learning needs in the cycle of the portfolio.

Prescriptive learning activities can also be used by health regulatory colleges for remediation purposes. Members who have previously been identified as having difficulties within a particular area may be asked to engage in targeted learning activities such as courses or learning modules as a way to improve specific areas of their practice.

Participant D conveys this process as:

If we find them deficient, we are sending them to a jurisprudence course, a record keeping course.

Therefore, prescriptive learning components are linked to the portfolio and do not occur in isolation. Rather, these components work together to provide comprehensive learning for holistic quality assurance programs. It is important to recognize that the use of prescriptive learning activities does not align with the humanist perspective or self-directed learning. In contrast, learning modules or on-line tests are more closely associated with the technical paradigm and the behaviourist orientation (Scott, 1998).

The technical paradigm enables educators to control the learning process to achieve specified results while providing a clear account of activities and outcomes (Plumb & Welton, 2001).

College administrators identify practice assessments as another component of their QA programs. Often a practice assessment involves an on-site evaluation of a health care professional within his or her practice environment. This assessment could be

conducted by a peer or through a multisource feedback approach. A multisource feedback method is a formative method of evaluation that involves collecting reactions to a health professional's performance from patients, peers, and coworkers in combination with a self-evaluation. The purpose of a multisource feedback system is to provide feedback based on core competencies and skills of the profession (Saberton & Violato, 2007). Participant E explains that the portfolio may lead to a more in-depth assessment:

It's reviewed by a peer assessor, and then the peer assessor comes out and meets the member at their place of practice, conducts an interview, clarifies any questions. In addition, they do a records review. It's essentially an audit to ensure that the records are being kept according to the regulation.

Similarly, Participant F explains the multisource feedback approach and how this type of assessment can possibly trigger an on-site assessment.

The evaluation component is really our multisource feedback surveys, and then the second level to evaluation is the on-site assessment. The Committee has the opportunity to review the portfolio materials and the multisource feedback survey, and if the multisource feedback survey indicates that they fall below the threshold, then they would require an on-site assessment, and these tools are currently under development, but it is a peer assessment and it involves a chart audit, currently a chart-stimulated recall and a structured interview.

The practice assessment could also include a behaviour-based interview where questions are related to the standards of practice of a profession and the application of essential competencies within the working environment. In essence, it is theory in practice. On-site or practice assessments are more recent additions to QA programs and are currently

under development, in a pilot phase, or only in the preliminary years of implementation.

Participant A states the evolution of the practice assessment component as:

that was piloted and is to be implemented for selected members in 2008 . . . the practice review component is the other half of the monitoring of the members by the College.

In contrast, the portfolio has a longer historical footprint within Ontario health colleges.

Often, the portfolio is used as a screening tool to determine if a health professional requires an on-site assessment, which is a more in-depth analysis of one's practice:

The portfolio is what we use to screen for practice reviews. (Participant D)

In summary, 2 administrators recognize that the portfolio fulfills the legislative requirements outlined in the respective regulations, while another administrator identifies the portfolio as a screening tool for the other QA components.

At the time I conducted the document review for this study, the other QA components were not as apparent on the college websites as the portfolio models. After speaking with college administrators, combined with my own experiences in a regulatory college, I believe that the secondary components are more recent additions to QA programs and in some cases they are still in the piloting phase of development.

Therefore, it is possible that information regarding the additional QA components would be more readily available if a new document review were conducted. I have also been left with the impression that in the case of a practice assessment, an individual's behaviours and actions are being evaluated, and this assessment may be more customized than the portfolio component. In summary, the interviews with college administrators demonstrated that the portfolio is only one component of a comprehensive quality

assurance program. Whether the additional QA components are classified as prescriptive learning activities or practice assessments, this examination provides an overview of the working relationship between the portfolio and the other components.

### *Portfolio Evaluation and Program Maintenance*

An essential aspect of the effectiveness of learning portfolios is how the portfolio is evaluated by the health regulatory colleges once submitted for review and methods used by the organization to review the portfolio to ensure that it remains an effective component of QA programs. The interview participants disclose both the internal random selection processes that the colleges use for portfolio submission and how feedback is communicated to members who submit their portfolio. The college administrators confirmed what I had found on the websites, that is, the percentage of members audited each year to submit QA portfolios ranges from 5% to 100%. Members are often selected through a random or stratified random process. Several of the interview participants also explained how this percentage can increase based on referrals from other college committees or the Registrar and how the number can decrease based on exemptions. One participant describes the selection process as follows:

So we have 10% in a stratified, random selection. We also have a number of referrals from previous years. So people who, perhaps who, who were given an extension from one year to the next or people who didn't do well the first year and we asked them to resubmit from another year. So they didn't have, maybe their learning was lacking that year and they've said something like, well I had a sick parent I was looking after or something. So we will say, okay, let's see your learning next year.



Another participant describes not only the current selection process but how the organization plans to increase the number of members selected as the program moves forward.

We have 4,200 members, but not all are practising, and we also have some that are out of country and so forth, so, or practising out of province. So I would say that is closer to 10 to 15%, and our goal is to reach 20%.

For some health regulatory colleges, the percentage of members selected for portfolio submission is one of the areas that is consistently monitored in order to gauge if changes are necessary. One administrator explains how the current random selection model can change based on the results obtained by the college.

We currently do 400 a year, and our membership is about 7,500. We have not been all the way through our membership, and the Committee felt that it's not necessary, that as long as the indications that are coming back that people are complying, that it isn't a requirement to have to have gone through everybody, but as I tell members, that can change.

All of the college administrators spoke about the maintenance and evaluation measures that their colleges use to assess the effectiveness of their QA programs. The most common evaluation tool is the use of surveys to capture reactions and feedback from the membership. The respondents noted that the surveys target issues such as portfolio design, self-assessment tools, and member satisfaction. The frequency of program evaluation measures varies among the colleges examined through the interviews. One administrator explained that surveys are sent to members after each audit cycle, which would be on an annual basis.

Well after each audit, or each member that's audited is sent a survey, and that survey data is summarized and given to the committee and it's been good for tracking trends and things like, you know, we're still finding that people say the handbook, that is great, or how many hours it's taken them to do it, or where they needed assistance, or what we should work on next, so the whole tool is evaluated. (Participant A)

Another administrator described the evaluation process as a two-step model in that a survey regarding quality assurance is sent to the entire membership approximately every 5 years, while a shorter survey is sent to all members who have been randomly selected on an annual basis.

We use the large survey, the one that goes out every 5 to 7 years. We also, you know, we keep statistics on the number of people who go through the process with no problems, and there are the ones that go through, we have to remediate for deficiencies. Last year we used a small survey for satisfaction to get a better understanding of how our QA program and the professional portfolio/peer assessment process was perceived by [specific health professional] who had portfolios reviewed in 2006.

By evaluating the portfolio program after each audit cycle, college administrators are able to continually gather data on how the program is perceived and experienced by health professionals in their specific college. The interviews with administrators reveal that each organization is in a different stage in the evaluation process, as some colleges have recently begun assessing their QA programs while others have been conducting assessments since the inception of the program and follow a predetermined schedule of

evaluation. The interview respondents provided valuable information regarding portfolio evaluation and program maintenance that was not readily available on college websites. The above section helps to answer question 3, which is related to the evaluation and maintenance measures adopted by colleges to ensure that portfolio programs remain effective learning tools.

### *Benefits and Challenges of Portfolios*

All the participants acknowledge that the use of portfolios as a component of QA programs has both benefits and challenges. The administrators described the benefits as: ownership of learning, ease of use, flexibility, and enhancing professionalism. The challenges identified by the participants included that the portfolio is time-consuming and leads to just-in-time preparation. The challenges will additionally be addressed in Chapter Five.

The most common benefit identified by the college administrators is the concept of ownership of learning. In the interviews, the administrators highlight the mechanics of portfolio completion, choice of learning activities, and flexibility to explain how portfolios allow the individual learner to control his or her own learning. Participant E notes that on a regular basis she counsels members to think about their learning and make the relationship to their practice environment. The ownership of learning commences with the self-diagnosis, continues through the learning plan and activities, and then is completed with the self-evaluation.

What would my learning goal be? And I have to call back and say, well I can't tell you that, you have to tell me what you wanted to learn and then we can put it into a learning goal, but I think this has really forced our members to go back,

really think about their learning, make sure that it does have relationship to their clinical practice and an impact on their practice. So I think those are the benefits.

(Participant E)

Participant D explains that by completing a portfolio, individuals are led through the process of self-reflection, and by documenting the learning process they are able to make connections to their workplace and monitor how they have grown from one learning goal to the next.

I think that, and if also as they are filling it out it allows for self-reflection, and so I think that is the key because they, it allows them as they are filling out a portfolio to see the relevance of the learning and to see how it does impact because they can monitor their growth.

It is the ownership of learning that allows health care professionals to reflect on their skills and create learning plans that correlate to their own practice and focus on their individual growth. This process ensures that the learning is relevant to the individual and contributes to not only owning learning experiences but controlling career goals.

Ownership of learning allows individuals to become active participants in quality assurance programs as they direct professional goals within the structure of a mandatory portfolio. The benefit of individual ownership also echoes the dual philosophy of the technical and humanist paradigms. QA portfolios in many regards are technical in nature, as members are required to complete a set amount of learning goals and activities within a specified format and time frame. At the same time, ownership of learning, autonomy of the adult learner, and individual choice are concepts associated with a humanist perspective (Merriam & Caffarella, 1999; Plumb & Welton, 2001).

Participants also indicate that the simple, flexible, and user-friendly design of the portfolio is another benefit for its use within a comprehensive QA program. Participant A points out the ease of use as one of the portfolio's many advantages.

So if something is more easy to use and it becomes more intuitive, I think it will improve.

This particular idea suggests that the flexible nature of portfolios encourages health professionals to learn in any environment as learning becomes part of the practice setting and not simply a task to be completed to meet regulatory requirements. The flexible nature of portfolios also suits varying budgets and is beneficial because members have the ability to choose learning activities that complement learning style and personal budgets for professional learning. Participant D offers examples of alternative learning activities:

It suits things like budget, you know people who aren't living in downtown [specific city], where there are a lot of courses, it suits them as well. They can do their learning on-line or through journals and through textbooks. There is a lot of flexibility I think in a portfolio.

The final benefit of portfolios that emerges from the interviews is that of enhancing professionalism. The final product of the portfolio provides members with a historical artifact of their learning that brings out feelings of pride in their profession and their learning. Participant D emphasizes how portfolio completion instills professional pride in members:

They are proud of their portfolios, so I think that, and I hear from enough of them that say that, but I think that they actually believe it, it portrays professionalism.

The benefit of professionalism links with the idea of the protean career that was earlier explored in the review of literature section of this study. An important feature of the protean career is the goal of psychological success attained through the process of continuous learning (Hall & Moss, 1998). The motivator for continuous learning in this career model is the new career contract designed for the individual and his or her own work, as opposed to being a binding contract with the organization. Psychological success is related to internal criteria including values and vision, in contrast to external indicators such as job promotion (Hall & Moss). The portfolio provides a record of continuous learning that helps to instill professionalism and leads to psychological success. Participant F recognizes this connection between the portfolio and the career of the health care professional:

The portfolio is meant for them and how valuable it can be for them, not only with their learning but their career building.

Despite the many benefits of the portfolio as a component to QA programs, college administrators confirm that they also present many challenges. The participants explain how many health care professionals perceive the portfolio as an exercise to complete in order to meet regulatory requirements instead of viewing it as a tool for their individual learning and continued growth. Although portfolios are simple in design, administrators note that they continue to receive complaints that the process of completing the portfolio forms and documenting learning is time-consuming. They are aware that the portfolio's value is not appreciated by all. The concept of just-in-time preparation is also identified by college administrators. Just-in-time refers to individuals

who complete the portfolio components simply because they have been selected to submit to the college for review. As Participant A notes:

I find people tend only to look at it when they're forced to, as in audit.

Therefore, not all health professionals are using the portfolio the way it was envisioned but rather are completing it simply for submission. The concept of completing a portfolio for submission is characteristic of presentation portfolios and evaluative portfolios because they are prepared to reflect a set of standards and are used in an evaluative process. Participant D also explains that there is a direct link between portfolios and competencies:

Maybe you are just good at doing portfolios.

This quote suggests that some individuals may have the ability to create comprehensive portfolios, but that does not necessarily translate into competent practice. The ability to complete forms and submit documentation that looks correct and complete does not guarantee that an individual was engaged in the learning activities. Therefore, the possibility exists that a good portfolio does not translate into newly acquired knowledge that can be applied within the practice environment. Once again, this suggests that some individuals may excel at preparing presentation portfolios and may not necessarily indicate a member's lifelong learning. In summary, the administrators identified only two problems with the portfolio process. In Chapter Five, I will explore possible reasons for the relatively small number of challenges identified by the administrators, and I will discuss additional issues that emerged from the analysis of the overall data.

*Identifying Members' Learning Needs*

The theme of learning needs of health care professionals in relationship to the Quality Assurance (QA) portfolio programs is an important aspect of the perceptions of college administrators regarding the effectiveness of portfolios. I asked the interview participants to describe how the regulatory colleges identify and respond to the learning needs of their members. This topic answers question 4. Three ideas emerge from the responses to this question: communication with the membership, partnerships with external organizations, and finally the role of the regulator.

The college administrators believe that by communicating with the membership, either through answering questions, attending conferences, or through interactions with college committee members, they are able to identify common issues and learning needs of the profession. Two participants specified that they actively gather recurring questions from the community and use the information as the framework for future communications with the members. One administrator explained that her college has created a telephone line that is devoted to answering common practice questions from the profession. This action has allowed the college to meet the needs of the membership by answering practice questions, but administrators are also gathering data on the profession that can be used to educate the community.

We also get a lot of feedback from our practice line. So the hot issues and the questions asked by registrants help us determine where some of the gaps in knowledge and judgment are.

In turn, the questions and trends are gathered by the regulatory college and then are disseminated through the membership by way of print publications, websites, and



presentations within the professional community. Participant D echoes the importance of communicating with the membership as a way to gather data on the profession.

I get a lot of telephone calls for, you know, questions that are recurring questions, and so if we see trends in that, we write articles in the [specific health professional] publication.

By communicating with members on a regular basis, health colleges are in a position to collect current issues in the profession, relate the questions to standards of practice, and circulate the information to the membership. By creating an open line of communication between health professionals and their regulatory body, colleges are not only keeping track of the evolving learning needs of members, but they are also becoming familiar with some of the needs of the health care system. Through education on these current issues, health colleges are able to meet the learning needs of their members and indirectly provide enhanced health care services in the province of Ontario.

The administrators also feel that by establishing partnerships with professional associations and educational institutions, the colleges are able to indirectly play a role in responding to the learning needs of the profession. One administrator explained that her regulatory college collects the types of learning goals that the members are engaged in and then that information is shared with other organizations.

We also are able to say what kinds of goals. These are the kinds of learning that members want to do and share that information with the academic institutions as well as the [specific health professional] and they're responsible for promoting and putting on educational opportunities for [specific health professional].

Another administrator explains that if the college determines learning needs through its discussions with the members, it provides the information to the other organizations that can act on the information.

So if we identify learning needs, we'll make suggestions to the provincial and national associations and they do on-line learning. (Participant D)

By establishing working relationships with professional associations and educational institutions, health colleges are able to indirectly respond to the learning needs of the membership. The administrators are clear, however, that education is not one of the roles of a health regulatory college and that this type of activity should not be viewed as the responsibility of the organization. Therefore, by providing information to their members regarding courses, workshops, or other educational activities in the professional community, they are able to assist with the learning needs without stepping outside their mandated role within the health care system.

The idea of partnering with external organizations regarding learning needs highlighted the distinctive role of a health regulatory college. When I first asked the question of how colleges identify and respond to the learning needs of their members, 3 administrators emphasized that health colleges are not in the education business and that they are not involved with any concrete methods of determining or responding to learning needs of health care professionals. Participant A describes the role of a health regulatory college as follows:

Council has identified that the learning needs are, if it's related to governance or self-regulated profession, that we should provide the information, an example on RHPA or some overriding problem.

Therefore the role of health regulatory colleges is to only educate members regarding self-regulation including acts, regulations, and by-laws. Although education is not considered to be one of the mandates of a regulatory body, I think that it is a role that they fall into based on their relationships with members, professional associations, educational institutions, and the public. I feel that an organization or an individual does not need to be in the education business to be an influencing factor on education.

My analysis of identifying members' learning needs has partially answered question 4. In essence, involvement in this particular area is limited because of the role of the organization. I believe that colleges are providing indirect support and guidance to health care professionals, although these forms of needs assessment are not extensive. For example, 1 administrator explains that the college gathers common practice questions and then focuses learning initiatives for that year around that particular area of practice.

An example of materials developed in response to the needs include the PREP module. Topics are selected after stakeholder feedback is obtained from registrants, College Committees, and Subcommittees. So it's really—I'm very impressed with this college and how it gets the information from the registrants. Three ideas emerged from the interviews with college administrators regarding identifying learning needs of members: communication with the membership, partnerships with external organizations, and the role of the regulator. This particular section establishes the internal pull of health regulatory colleges, as they are not in the business of education and it is not included in their mandate, but at the same time, they feel a responsibility to gather the issues and communicate with the members, either directly through websites or publications or indirectly through educational organizations.

The process of gathering and analyzing data not only helps to identify common questions but also provides an opportunity for open dialogue within the professional community, which may lead to other educational initiatives sponsored by affiliated organizations.

### *Identifying Organizational Needs*

One of the themes that surfaces from the interviews with college administrators is the needs of the health regulatory college as an organization. The focus on the organization's needs was an unexpected finding for me, as I had focused my research on the individual learner and had neglected to consider which needs of the organization would have been considered when selecting the portfolio as a component of QA programs. The inclusion of organizational needs in this study is an example of how the perspective of college administrators adds depth to understanding some of the issues surrounding the effectiveness of portfolios in QA programs. The organizational needs identified by college administrators can be categorized as membership co-operation and the legitimacy of program implementation.

In order for a QA program to be successful, there must be support of the initiative from the members. Although quality assurance is mandated by the government, co-operation and acceptance of the format by the professionals who complete the program is a key ingredient for its success. Therefore, health colleges must establish and maintain quality assurance activities that are accepted by the membership. Participant C describes membership co-operation from her perspective as:

We still like the idea of the portfolio, and we have, there's acceptance from our members, which is for our College, big! So the fact we have virtually 100%

compliance when we randomly select is a big thing for us, so we don't want to mess with that.

Participant B described membership co-operation as the need for programs to be suitable to the profession within a variety of practice environments, which increases the likelihood of co-operation from the members.

We want it to be acceptable to the profession. We want it to be multifaceted and flexible to accommodate all practice areas because we have very heterogeneous practice area.

In order to gain the membership's co-operation and support, the organization needs to market the portfolio to the community so that members accept and comply with the requirements of the learning portfolio.

So we marketed it in such a way that we say we're not asking you to go out and do any formalized learning, we're asking you to share with us what you are currently doing. (Participant C)

By working with the membership, health colleges are fulfilling regulatory requirements and ensuring compliance for QA programs such as the portfolio. The ideas brought forward by college administrators regarding the need to have co-operation from the membership reinforce how each college has developed a portfolio that is unique. By tailoring portfolios to a specific professional community, health colleges are gaining co-operation from the membership because they are acknowledging the diversity of the profession that they are regulating. Moreover, by addressing the need for membership co-operation, the needs of the organization are not only identified but also met.

An additional aspect of organization needs is the legitimacy of implementation. It is essential for health colleges to create QA programs that are valid for the organization to execute. Therefore, the organization needs to consider variables such as staffing, monetary resources, and membership size. For example, before selecting the percentage of portfolios to be reviewed each year following a random selection process, the college needs to ensure that it has the staff resources to collect and organize the portfolios and the committee resources available to have the portfolios reviewed. The college administrators emphasized the need for QA programs that are suitable for their organizations to manage and maintain based on the size of their membership. The portfolio model suits both small and large memberships, and the format is a cost-effective factor that is essential for nonprofit organizations. Participant D notes that there were several areas analyzed by the organization when choosing the portfolio as a component of its QA program.

You know, looking back on it, they did examine other areas, they looked at a good—for using large numbers because we are a fairly large college now, and they were looking at that, so they were looking at—you know when this came about too there was that question about the need for it, and I think the portfolio was seen as a really an adult learning tool, it showed mature professionals. I think that was the fit, but yes, they did look at other areas too.

Although health regulatory colleges consider regulatory needs in combination with individual learning needs, the organization as an entity has requirements that must be also fulfilled in order for the QA program to be successful. By addressing the need for membership co-operation and the legitimacy of implementation, health colleges are able

to create portfolios that satisfy regulatory requirements while at the same time administering programs that are relevant to both the professional community and the organization.

### *Relationship Between Competence and Learning*

In order to determine some of the issues surrounding the effectiveness of portfolios as a means to promote quality practice and continued competence, I felt it was necessary to ask administrators to discuss the relationship between competence and learning. It was the one question that caused the respondents to smile or even laugh. One of the participants started her answer with:

Well, that's a big question isn't it? I think if you could answer that question, that would be a gold star. (Participant E)

All of the participants agree that a relationship exists between competence and learning, but how they view this association varies. Two participants commence their response by defining competence and learning and then articulate that what joins the two together is critical thinking and judgment. Participant B describes competence as the ability to apply knowledge and skills into one's practice. She does make the distinction that competence is not a direct outcome of learning, but rather the ability to think critically is what transforms learning into increased competence.

Well there is a relationship, I mean when I think of competence, I think of knowledge, skills, practice, performance, attitude. I think of those things. You have knowledge, you have to have skills you can put it into practice. Critical thinking ability to say "even though I have knowledge and skills is not appropriate in this particular situation." That's what to me competence means.

Learning is a clear step towards becoming competent, but not because you have learned it means you are competent. (Participant B)

Participant F describes this relationship in a similar fashion by distinguishing how the two concepts are different and then how the two can be joined together through critical thinking and judgment. She explains that competence is the ability to perform a specific job or task, while learning is the acquisition of skills and knowledge that allow one to perform a specific function. Once again she contends that learning does not guarantee competence because the two concepts are united by the ability to exercise judgment and critical thinking.

So I think of course someone being competent has the skills and knowledge to be able to perform a specific task or function. Learning enables you to be able to do that task or function. But I think there is a difference. Somebody can learn something but still may not be competent in performing it, so there's a piece there that you need to bridge between learning and establishing or developing competence, which is the judgment and critical thinking.

While these 2 administrators focus on critical thinking and judgment as the bridge that links learning and competence, 2 other administrators focus on the need for competence to be present in order for learning to have an impact on continued competence. Even then, they feel that the relationship is not a stable one. Participant E contends that self-directed learning programs are valuable only for a competent practitioner, which suggests that competency needs to be present in order for valuable learning to occur. She explains this relationship as follows:



My sense is that those practitioners who are competent will be able to use a learning program to maintain and increase their competency. For those practitioners that are not competent, I'm not sure that a self-directed learning program can meet their needs.

Participant C explains that continued learning does not necessarily provide an outcome of increased competence within a practice environment. She does not suggest that critical thinking is required for learning to increase one's competence but instead feels that not even a bridge can join learning with competence. She describes the relationship as follows:

Does that learning transfer into improved competence at the bedside? Well, that's a bit of a leap.

Once again, these 2 administrators believe that there is a relationship. They do not contend that learning results in competence but rather that one may have some impact on the other even though it is not feasible to measure that influence. Participant C continues her explanation of the portfolio's inability to measure competence:

I think we all agree the same with the portfolio form that we don't have any way to measure that, and you know even if we did have a way of measuring it, I think the suspicion would be to have—to have really been a change in competence . . . .

But to actually prove, that is a totally different story.

The answers provided by the interview respondents demonstrate that they do not perceive a direct correlation between competence and learning. More important, even if some make a clear distinction between competence and learning, they feel that the relationship

between the two cannot be measured or evaluated within practice settings of health care professionals.

After analyzing the interview responses regarding the relationship between competence and learning, I thought again about the purpose of QA programs. As outlined previously, the goal of QA programs is to promote quality practice and continued competence among health professionals. One could argue that if learning does not translate into continued competence, a portfolio program with self-directed learning activities may not be able to meet the objectives of QA programs. However, it is important to note that without portfolio programs, regulatory bodies would have a difficult task of making any judgments regarding competence, as professionals' learning is considered a valuable tool to achieve continued competence.

#### Application of Results to Robert Stake's Responsive Evaluation Model

The final phase of the presentation of the results from this study is the application of the data collected from the document review and interviews with health regulatory college administrators to Robert Stake's responsive evaluation model. Robert Stake's matrix provides a framework for the evaluator to gather and analyze the data necessary to assess an educational program. The matrix is comprised of both description and judgment. The description matrix includes instruction and achievement and the relationship between the two. In contrast, the judgment matrix leads the evaluator to process the judgments made by others and to collect subjective opinions in an objective manner (Stake, 1967). The final component of Stake's framework is the rationale of the educational program that is considered to be the philosophic background or guiding principles.

The description matrix combined with the rationale portion of Robert Stake's model provides the required framework to synthesize the results from both methods of data collection. The description matrix of the model is comprised of both the intents and observations of educational programs, and the evaluation requires that the antecedents, transactions, and outcomes of a program be taken into account (Stake, 1967). In this study, the *intents* of QA portfolio programs were obtained from the document review and the *observations* acquired from the college administrators. By applying the results from the two data sources to the selected portions of Stake's responsive evaluation model, the antecedents, transactions, and outcomes of QA portfolio programs as both intents and observations become apparent.

I have applied the results regarding the philosophy of learning to the rationale section of Stake's data matrix. The rationale of an educational program is considered to be its philosophic principles (Stake, 1967). The results reveal that some colleges have developed a philosophy of lifelong learning that is closely aligned to the humanist perspective. In contrast, other colleges are focused on the concepts of feasibility, reliability, and acceptability that are grounded in the technical paradigm. An additional observation is the widespread use of the SMART goals framework by many colleges. The elements expressed by acronym SMART, that goals should be specific, measurable, attainable, realistic, and timely, are found in a behaviourist or technical view of teaching and learning.

The perspective of the administrators revealed that most often the technical and humanist paradigms are blurred together to create a philosophy of learning. The portfolio addresses standards and requirements while creating individual learning opportunities for

health professionals. The portfolio and its guiding principles mirror the dual forces in health care, as professionals adhere to standards and offer technical expertise while delivering care in a compassionate manner. The dual forces of the technical and humanist paradigms are also evident in the role of the regulatory colleges. While meeting regulatory requirements set by the provincial government, colleges are also attempting to address individual learning needs to ensure that the public receives the best services available. I believe that the contrasting objectives of health professionals and in turn health colleges have influenced the guiding principles of QA portfolio programs. Table 6 displays the application of the results from this study to the rationale section of Stake's data matrix.

Both data sources provided information regarding the antecedents of QA portfolio programs; that is, the antecedents are the conditions that exist prior to the learning process (Stake, 1967). The results demonstrated that the portfolio is a mandatory component of QA programs, and its intent is to promote quality practice and continued competence. Regardless of the members' practice environments or individual learning goals, the portfolio is compulsory. The interviews added unforeseen information, however; some colleges use the portfolio as a screening tool for other QA components such as practice assessments and on-site evaluations.

The results from this study clarified the audit or evaluation processes that colleges use to ensure that members engage and comply with the portfolio requirements. Each year, members are randomly selected to submit their learning portfolios for review to demonstrate compliance. Whether 5% or 100% of a health profession's members are specifically targeted, the act of auditing portfolios for submission exists prior to adult

Table 6

*Application of Results to Rationale Section of Robert Stake's Description Matrix*

<b>Rationale</b>
12 of 14 websites describe philosophy of learning
<ul style="list-style-type: none"> <li>• 8 humanist</li> <li>• 2 lifelong learning</li> <li>• 1 Kolb learning styles</li> <li>• 1 technical</li> </ul>
7 of 14 colleges use SMART goals
Administrators' perspective—dual philosophies of technical and humanist paradigms
<ul style="list-style-type: none"> <li>• Reflection of dual forces in training and job description of health professionals</li> <li>• Symbolic of dual role of regulatory colleges</li> </ul>

*Note.* From “The countenance of educational evaluation,” by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

learners' engaging in the cycle of portfolio completion. There are some cases when the percentage of selection for audit may diverge from the intended target due to referrals and exemptions. The antecedents of portfolios are conditions that exist within the regulatory college framework and are a reality for all members. These conditions are not based in individual learning goals or the process of completing a portfolio, but they may impact upon how a member engages in the learning experience. Table 7 provides a visual presentation of how the results have been applied to Robert Stake's responsive evaluation model in the antecedents section of the matrix.

The transactions of the learning process were also obtained through the document review and interviews with college administrators. All 14 portfolio models reviewed have three main components of: self-diagnosis, learning plan and activities, and self-evaluation. The cyclical pattern describes the process of learning that each health professional completes to finish the portfolio. The secondary components of the portfolio are member profile and peer/other feedback. Although not consistently present in all of the portfolio models examined, these supplementary components were highlighted by administrators as important to the outcomes of the portfolio. The process of completing a member profile provides adult learners with a tool for organization and assists them with self-diagnosis. The results demonstrated that portfolio completion requires as few as two and as many as six separate stages to complete all of these components. In some colleges, certain components are combined, while in other colleges, there is more than one stage required to complete one component. Regardless of the number of stages, all 14 portfolio models display a linear process of self-directed learning.

Table 7

*Application of Results to Antecedents Section of Robert Stake's Description Matrix*

Intents	Observations
• Mandatory component of QA programs	• Mandatory component of QA programs
• Audited by college for compliance	• Audited by college for compliance
• Random selection process	• Random selection process  • May be used as a screening tool for other QA components
• Specific percentage of members targeted for examination of portfolio	• Percentage of selection for audit may diverge from intended target due to referrals and exemptions

*Note.* From “The countenance of educational evaluation,” by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

Both data sources revealed the types of learning activities that members can participate in to complete the QA portfolio. These learning activities are classified as formal, informal, and nonformal. The majority of colleges in the study sample describe learning activities as guidelines so that members can choose the activities that suit their learning styles and budgets. In contrast, three colleges describe learning activities with restrictions, as they have limitations based on categories using measures of hours, credits, and points. The information provided by administrators regarding the other components of QA programs established the variety of learning methods used by the colleges. For example, some members are required to complete learning modules or standardized tests as part of their continuous learning. Although these other elements are not always directly related to the portfolio, I felt that it was necessary to add them to the matrix as they are additional transactions in the learning process identified by administrators as part of a comprehensive QA program. Table 8 provides a visual representation of the application of results to the transactions section of the matrix.

As expected, the results from the document review and the interviews with college administrators did not reveal the outcomes of the portfolio programs. As described by Stake (1967), the outcomes are the achievements, skills, and abilities that are produced from the educational experience. Neither the document review nor the interview responses identify the individual achievements of the health care professionals completing the portfolios. Although the intention of the programs is to promote quality practice and continued competence, the individual skills and abilities are not available, as the outcomes would be as unique as each health professional and his or her learning goals. However, the college administrators were able to identify general outcomes of the



Table 8

*Application of Results to Transactions Section of Robert Stake's Description Matrix*

Intents	Observations
<b>Portfolio design</b> <ul style="list-style-type: none"> <li>• All 14 portfolios reviewed have three main components (self-diagnosis, learning plan and activities, and self-evaluation)</li> <li>• 9 of the 14 portfolio models reviewed include a member profile</li> <li>• 2 of the 14 portfolio models include peer/other feedback</li> <li>• Two to six separate stages required for portfolio completion</li> <li>• All 14 display characteristics of a linear model of self-directed learning</li> </ul>	<b>Portfolio design</b> <ul style="list-style-type: none"> <li>• Both primary and secondary components play an important role in the portfolio</li> </ul>
<b>Types of learning and assessment</b> <ul style="list-style-type: none"> <li>• 11 of 14 describe learning activities as guidelines (no restrictions)</li> <li>• 3 of 14 describe learning activities with limitations (hours, points, credits)</li> <li>• All learning activities can be categorized as formal, nonformal, and informal</li> </ul>	<b>Types of learning and assessment</b> <ul style="list-style-type: none"> <li>• Other QA components <ul style="list-style-type: none"> <li>▪ Prescriptive learning activities</li> <li>▪ Practice assessments</li> </ul> </li> </ul>

*Note.* From "The countenance of educational evaluation," by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

program such as professionalism and ownership of learning. While these general outcomes are not skills or abilities, they are achievements that result from completing portfolio programs. The interview respondents further added that the QA portfolio provides health professionals with a method to record all continuous learning activities and individual goals, whether for professional or regulatory purposes. These general outcomes suggest that portfolios contribute to the concept of enhancing the protean career. Table 9 displays how the results have been applied to Robert Stake's responsive evaluation model in the outcomes section of the matrix.

### Summary of Results

The results from the document review are classified into four main areas of interest including portfolio design, types of learning and assessment in portfolios, portfolio evaluation and member support, and additional observations. The interviews with health regulatory college administrators also reveal portfolio design and types of learning and member support and another six topics are added to the initial areas of interest from the document review. These additional themes include: other QA components, portfolio evaluation and program maintenance, benefits and challenges, learning needs, organization needs, and the relationship between competence and learning. The two data sources are combined and applied to the description matrix of Robert Stake's responsive evaluation model in order to construct a picture of both the intents and observations of QA portfolio programs. Table 10 provides an overview of how the results from this study have been applied to the description matrix of Robert Stake's responsive evaluation model. A complete summary of the results from this study can be found on pages in Chapter Five under the heading summary of study.

Table 9

*Application of Results to Outcomes Section of Robert Stake's Description Matrix*

Intents	Observations
	<p data-bbox="820 426 1052 457">General outcomes</p> <ul data-bbox="868 499 1347 688" style="list-style-type: none"> <li data-bbox="868 499 1117 531">• Professionalism</li> <li data-bbox="868 573 1304 604">• Record of continuous learning</li> <li data-bbox="868 646 1347 678">• Establishes ownership of learning</li> </ul>

*Note.* From “The countenance of educational evaluation,” by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

Table 10

*Summary of Application of Results to Robert Stake's Description Matrix*

	Intents	Observations	
<b>Rationale</b>			
Philosophy of Learning	<ul style="list-style-type: none"> <li>• Mandatory component of QA program</li> <li>• Audited by college for compliance</li> <li>• Specific percentage of members targeted for portfolio submission</li> </ul>	<ul style="list-style-type: none"> <li>• Mandatory component of QA program</li> <li>• Audited by college for compliance</li> <li>• May be used as a screening tool for other QA components</li> <li>• Percentage for audit may diverge</li> </ul>	<i>Antecedents</i>
<ul style="list-style-type: none"> <li>• 8 humanist</li> <li>• 2 lifelong learning</li> <li>• 1 Kolb learning styles</li> <li>• 1 technical</li> </ul>	<b>Portfolio design</b>	<b>Portfolio design</b>	
<ul style="list-style-type: none"> <li>• Use of SMART goals</li> </ul>	<ul style="list-style-type: none"> <li>• Primary components: self-diagnosis, learning plan and activities, and self-evaluation</li> <li>• Secondary components: member profile and peer/other feedback</li> <li>• All linear models of SDL</li> </ul>	<ul style="list-style-type: none"> <li>• Both primary and secondary components play an important role</li> </ul>	
<ul style="list-style-type: none"> <li>• Dual philosophies of technical and humanist paradigms</li> <li>• Reflective of training and roles of health professionals</li> <li>• Symbolic of dual role of regulatory bodies</li> </ul>	<b>Types of learning and assessment</b>	<b>Types of learning and assessment</b>	<i>Transactions</i>
	<ul style="list-style-type: none"> <li>• Learning activities defined according to guidelines or with limitations</li> <li>• Learning activities can be formal, nonformal, and informal</li> </ul>	<ul style="list-style-type: none"> <li>• Other QA components               <ul style="list-style-type: none"> <li>▪ Prescriptive (tests, exams)</li> <li>▪ Practice assessment</li> </ul> </li> </ul>	
		<ul style="list-style-type: none"> <li>• Indicators of professionalism</li> <li>• Record of continuous learning</li> <li>• Ownership of learning</li> </ul>	<i>Outcomes</i>

*Note.* From "The countenance of educational evaluation," by R. Stake, 1967. *Teachers College Record*, 68, p. 528.

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## CHAPTER FIVE: SUMMARY, DISCUSSION, AND IMPLICATIONS

This is a study of Quality Assurance (QA) programs of selected health regulatory colleges in Ontario. The purpose of the study was to determine some of the issues surrounding the effectiveness of the learning portfolio component of QA programs. This assessment is based on data collected from 6 health regulatory college administrators in semistructured interviews in combination with a review of 14 learning portfolio designs currently being used by health care professionals. The study examined the development, maintenance, and evaluation of QA portfolio programs through the application of Robert Stake's responsive evaluation model together with the theoretical frameworks of humanism and constructivism.

### Summary of Study

The rationale for this study focused on the need to understand the effectiveness of the learning portfolio to promote quality practice and continued competence. Previous studies conducted on QA programs have been related to the perceptions of government or individual health professionals. This study provides the perspective of the college administrator in combination with an overview of 14 portfolio models currently being used in the province. The focus of the study has been in the principles of adult learning and how self-directed learning and self-assessment can be applied to workplace environments. The general research question has been addressed through an examination of the following specific questions:

1. What challenges do health regulatory college administrators face in trying to balance the goals of the individual learner with the goals of QA programs?  
What strategies do they use in order to meet these challenges?

2. What guiding principles were considered in establishing QA portfolio programs of the selected health regulatory colleges in Ontario?
3. What evaluation and maintenance measures do selected health regulatory colleges in Ontario use to assess the overall effectiveness of instituted QA portfolio programs?
4. How do the selected health regulatory colleges identify and respond to the learning needs of health care professionals?
5. How do the selected health regulatory colleges assist members with self-directed learning initiatives and self-assessment if members encounter difficulties?
6. How do health regulatory college administrators ensure that members comply with and actively engage in QA portfolio programs?

The literature reviewed to support this study began with an examination of the theoretical perspectives of humanism and constructivism that identify the needs and characteristics of the learner and the creation of knowledge within a learning context. Robert Stake's responsive evaluation model was also described to provide an overall conceptual framework for the examination of portfolio models. Additional literature reviewed included the definitions of quality and quality assurance and the history of Total Quality Management (TQM) and the impact of these concepts on health care. Self-directed learning, self-assessment, learning contracts, learner-centered curriculum, and the protean career were also reviewed to examine how opportunities for meaningful learning are created. Through a description of types of portfolios and related studies, the

use and effectiveness of portfolios in professional development were established and formed the basis of this study.

To answer the research questions, this study adopted a generic qualitative research design, informed by case study methods and collected data through a document review and interviews. I analyzed 14 portfolio programs by using a document review protocol that I created. I then interviewed 6 health regulatory college administrators: 5 administrators from colleges that govern between 2,000 and 8,000 members and who have at least 3 years experience in QA program implementation, and 1 administrator who participates in the Federation for Health Regulatory Colleges of Ontario QA Working Group and is from a college of the same membership size. All of the interview participants are women whose years of experience in QA program administration range from 6 months to 7 years.

The first specific question of this study asks what challenges health regulatory college administrators face in trying to balance the goals of the individual learner with the goals of QA programs and what strategies they use in order to address these difficulties. Although college administrators identified the mandatory nature of portfolios and just-in-time preparation as obstacles to the effectiveness of portfolios, the participants did not report any additional struggles when specifically asked. I feel that there are several reasons why this may have occurred during the interviews. The role of college administrators is to make the QA program that their college has adopted work for all members and obtain compliance from health professionals. Within this role, administrators are hesitant to draw attention to shortcomings of the portfolio component because their role in the regulatory environment is to market the program within the

community. In addition, my positionality in a health college may have influenced the responses. Administrators may not have felt comfortable describing program challenges to a college employee in a supportive role. If the participants had responded to the interview questions in a questionnaire format, they might have allowed themselves more time to think about issues that they do not reflect upon on a daily basis. Although the college administrators were not able to list many challenges when they were directly asked, they did point out shortcomings during other portions of the interview. For example, when the participants were asked to describe the relationship between competence and learning, they revealed that learning does not directly correlate into increased competence. In my opinion, this is a significant problem as the goal of QA programs, including the portfolio component, is to advance quality practice and continued competence.

Another challenge that emerged from the data, even though it was not in answer to my specific question about challenges, was how self-directed learning activities may be useful only for competent practitioners. One administrator expressed concern that self-directed learning programs may not meet the learning needs of practitioners that are not competent. Within this context, the definition of self-directed learning focuses on the characteristics of the individual learner and not necessarily the linear model of self-directed learning. Therefore, portfolios that incorporate self-directed learning activities may not be the appropriate program for all professionals if one's ability to be self-directed is in question. The complexity of self-directed learning creates challenges for organizations when the definition is blurred between internal personality characteristics versus process-oriented methods of instruction.



The second question asked what guiding principles were considered when establishing QA portfolio programs. The results from this study revealed that the guiding principles for portfolios are drawn from the two distinct perspectives of humanism and the technical paradigm. Although most portfolio models demonstrate humanist values and recognize the central importance of the individual learner, there are also aspects of the same programs that reflect technical underpinnings such as feasibility, reliability, and acceptability. The results also illustrated that the concepts of lifelong learning and Kolb's learning styles were considered by some of the colleges. It became evident that in many cases, several guiding principles from a variety of perspectives were considered, as many portfolio programs show signs of multiple influences, and that dual nature of health professionals' background and values is reflected in the combination of technical and humanist philosophies.

Question 3 of this study asked what maintenance and evaluation measures are used by health regulatory colleges to assess the overall effectiveness of QA portfolio programs. The results establish that surveys are the most common tool. In some cases, colleges distribute surveys to members who have been selected to submit their portfolio for evaluation. In other colleges, a questionnaire is sent to all members every few years to gauge how the portfolio is experienced and perceived by the health professionals who use it. Evaluation and maintenance can also be implied by noting the publication date of the portfolio forms from the college websites. Although not a concrete articulation of the changes being made to the portfolio components, the different versions demonstrate that maintenance is occurring, perhaps in response to the comments received through the surveys distributed. The random selection process of collecting QA portfolios is a third

method used by colleges to evaluate the effectiveness of the QA program. As colleges examine members' portfolios each year, administrators are able to identify areas that require clarification or even changes in order to respond to the portfolios submitted.

Question 4 of this study asked how selected health regulatory colleges identify and respond to the learning needs of health care professionals. The results revealed they do so through communication with members and partnerships with external organizations, while paying close attention to their distinctive role as regulator. Regulatory colleges actively collect current issues from members and use the information as the foundation for print publications, website updates, and presentations within the professional community. Another form of identifying and responding to members' learning needs is through establishing partnerships with professional associations and educational institutions that have the ability to act on the information obtained by colleges. Professional associations can include this information in conferences and professional gatherings, while educational institutions can create courses or incorporate the needs into training new health professionals. The idea of partnering with external organizations highlights the distinctive role of regulatory colleges. Administrators emphasized that colleges are not in the education business and therefore are not mandated to identify or respond to learning needs of their members. However, although education is not their mandated role, the results of the study demonstrate that regulatory bodies do play a part in identifying and responding to member concerns through their unique relationships with members, professional associations, educational institutions, and the public of Ontario.

Question 5 asked how the health regulatory colleges reviewed assist members with self-directed learning initiatives and self-assessment. This specific question was answered through an examination of the various types of program support available for health professionals in order to complete the QA portfolio component. All the portfolio models contain a user's manual that describes the portfolio and how it is to be used and completed by the health professionals in each of the colleges. A total of 57% of the portfolio models examined provide exemplars or samples of completed portfolios to demonstrate how the portfolio looks once completed. Frequently asked questions, found in 64% of the portfolio models reviewed, are generally related to program requirements, reasons for self-assessment and self-directed learning, and the use of the forms. Resources and references for members, including how to create learning goals, ideas for learning activities, and reference materials, are evident in 11 of the 14 portfolio models. Other resources include the use of a glossary of terms (14%), the description of learning cycles and styles (21%), and workshops (7%). Therefore, health regulatory colleges have a variety of program supports in place that assist members with the requirements of portfolio completion, most importantly self-assessment and self-directed learning.

Another method of assisting members with self-directed learning and self-assessment is through the types of feedback provided after a portfolio has been submitted for review. More than half of the websites examined document the type of feedback offered to members who submit their portfolios. The feedback is individual or presented as an aggregate summary that allows members to compare their profile to their peers'. The individual feedback is either standard, through the use of a preset form that indicates whether members are compliant with the program or have an incomplete portfolio, or

descriptive, through personal comments to help health professionals define and accomplish their learning goals. Prescriptive learning activities are additional QA program components that complement the portfolio. Their content is controlled by the regulatory college and is most often related to regulations, standards of practice, or current concerns in the health care community. Although it is not the direct purpose of these learning activities to help with self-directed learning and self-assessment, these prescriptive components offer members opportunities to further develop different aspects of their profession and may give them future learning goals that could be explored within the structure of the learning portfolio.

The final specific question of this study asked how college administrators ensure that members comply with and actively engage in QA portfolio programs. The most significant method is the yearly collection of portfolios, most often through a random selection process. The results indicated that the percentage of members selected by colleges ranges from 5% in some colleges to 100% in others. The percentage in a specific college may increase based on referrals from the Registrar or decrease based on exemptions. The portfolio sometimes serves as a screening tool for on-site practice assessments. If members are aware that a poor portfolio may lead to a practice assessment, they have a greater incentive to comply with the requirements of the portfolios to avoid a detailed assessment at their place of employment.

### Discussion

Data collected from both the document review and interviews with health college administrators were applied to the description matrix of Robert Stake's responsive evaluation model (see Table 10 in Chapter Four). In order to further explore the issues

surrounding the effectiveness of QA portfolios, it is beneficial to refer to the judgment matrix of the model. Judgment within this framework suggests that the evaluator processes the opinions of others in an objective manner (Stake, 1967). The judgment matrix is comprised of standards and judgments through an examination of antecedents, transactions, and outcomes. Table 11 presents a visual display of the judgment matrix of Robert Stake's responsive evaluation model to explore the issues surrounding the effectiveness of QA portfolios.

The antecedents of QA programs within the standards section refer to the regulations created by the government and what they envision as a method of promoting quality practice and continued competence. However, I feel that the varying concepts of quality and quality assurance have impacted upon the judgments made by organizations with respect to the conditions of the portfolio prior to engagement by the learner. As previously identified, quality assurance is ensuring that a common external standard is met as opposed to seeking to continuously improve (Dew & McGowan Nearing, 2004). Perhaps the concept of quality assurance as it has been defined by the provincial government is not even possible, as meeting standards appears more important than continuous improvement. Quality is not only difficult to define, but it is equally difficult to evaluate and measure (Harvey & Green, 1993). I feel that the judgments made by regulatory colleges regarding quality and quality assurance determine the conditions of the portfolio programs. It almost appears as if the goal of QA programs is impossible, simply by definition. Perhaps the ability to measure and evaluate quality is dependent upon the standards or competencies that have been established by each health profession and the environment in which they practice. It is possible that some

Table 11

*Application of Results to Robert Stake's Judgment Matrix*

	Standards	Judgments
<i>Antecedents</i>	<ul style="list-style-type: none"> <li>• Government regulations</li> <li>• Government standards of quality</li> <li>• Government's method for ensuring quality (e.g., QA programs)</li> </ul>	<ul style="list-style-type: none"> <li>• Each college interprets what quality is</li> <li>• Competencies and standards define conditions of QA programs and portfolio models</li> </ul>
	<ul style="list-style-type: none"> <li>• Each profession has standards of practice</li> </ul>	<ul style="list-style-type: none"> <li>• Each college sets the portfolio requirements to meet the needs of the organization</li> </ul>
	Contradictions	Friction
<i>Transactions</i>	<ul style="list-style-type: none"> <li>• Each member's learning goals for the year</li> <li>• Each member's preference for ways to learn</li> </ul>	<ul style="list-style-type: none"> <li>• Each member compares his or her skills to the standards of the profession during self-diagnosis and self-assessment</li> </ul>
	<ul style="list-style-type: none"> <li>• Continued competence according to each profession's essential competencies</li> <li>• Provision of quality care to patients</li> </ul>	<ul style="list-style-type: none"> <li>• No direct relationship between learning and competence according to administrators</li> <li>• Portfolios provide some indications of an individual's skills of the profession</li> </ul>
<i>Outcomes</i>		

*Note.* From "The countenance of educational evaluation," by R. Stake, 1967. *Teachers College Record*, 68, p. 528. Copyright 1967 by R. Stake. Adapted with permission.

professions may find the task of evaluating quality to be an easier task than others and may be dependent upon how quality is defined and the methods by which quality assurance is determined. Therefore, I think it is prudent to consider how quality is interpreted by the various health colleges and how that perspective influences the portfolio component of QA programs.

The transactions within the judgment matrix refer to the series of learning events that form education. The learning activities that health professionals engage in to complete the portfolio requirements are related to their learning goals and developed after self-diagnosis of learning needs. The process of completing this self-diagnosis is directly related to the standards of practice set by the regulatory body. Therefore, learning activities selected by members are directly related to the essential competencies determined by the profession. The judgments are the choices made by health professionals with regards to the standards. Through the self-diagnosis component of the portfolio cycle, members are asked to evaluate their own practice abilities and make judgments regarding those skills when compared to the standards of the profession.

To some extent, the transactions in the portfolios present contradictions between individual learning needs and the needs of the organization. Members are expected to complete a series of activities within the framework of the established portfolios. Some colleges require members to complete a predetermined number of hours of continuous learning activities, while others insist that health professionals organize learning activities by delivery method and ensure that there are enough activities within certain groupings. The judgments made by regulatory colleges with regards to the series of events that form the learning experiences may be different from those of the health professionals.

Whether colleges create these parameters for philosophical reasons or to meet organizational needs, there could be incongruencies between what a member deems to be preferred learning activities and what the regulatory college considers appropriate. It is possible that creation of portfolio requirements that are viable for the organization may come at a cost to the individual learner. The judgments made regarding the transactions in the portfolios may thus create friction between the needs of the organization and those of the individual health professional.

The anticipated outcome of QA portfolios is to ensure that health care professionals continue to be competent practitioners who provide quality health services to the public of Ontario. The standards of this desired outcome are determined by a profession's essential competencies. Although the skills and abilities are unique to each individual learner, the overall goal of health colleges is to provide QA programs that support health care members to expand their ability to continually provide the quality care required in a demanding system (Bohnen, 1994). In contrast, the administrators' judgment of the outcomes of portfolio programs suggests that there is no relationship between competence and learning. This lack of relationship is one of the most significant issues surrounding the effectiveness of QA portfolios. If the goal of QA programs is for members to engage in continuous learning activities in order to maintain competent practice, it is because the government and regulatory colleges expect that enhanced learning leads to increased competence. The college administrators reported that they do not perceive a direct correlation between competence and learning and that competence cannot be measured or evaluated in a practice setting.



The relationship between competence and learning weighs heavily in the judgment concerning the effectiveness of portfolio programs. However, regardless of whether or not the engagement in learning activities directly results in increased competence for the health professional, QA portfolios do provide colleges with some indications of an individual's abilities and skills within a particular health profession. Therefore, although a true cause and effect relationship between learning activities and quality care cannot be established, the results of this study lead me to conclude that portfolios are a valuable component of QA programs for health professionals in Ontario.

### Theoretical Implications

This study has increased our understanding of theories of self-directed learning in the workplace through a current application. The examination of the use of portfolios as a component of QA programs for Ontario health professionals provides a concrete example of how learning contracts can be applied within diverse health professions in a variety of practice environments. Further, this study provides an example of how self-directed learning and regulation can cohabit within one framework. Although it is yet to be determined if this is a true partnership, both individual and organizational needs can be addressed through the implementation of a portfolio. This study has confirmed the results of other studies concerning the use of portfolios within the regulatory community. Both the study of the Ontario College of Pharmacists (Austin, Marini, & Desroches, 2005) and Lemke's (2007) review of nurses' portfolios reach similar conclusions. Portfolios are an effective means to promote quality practice and continued competence, but assistance is required for professionals to develop both self-directed learning and self-assessment skills. Although this study confirms those findings, I believe that it provides an additional element in voicing the

administrators' perspective and broadens the scope of these findings, as it is concerned with several health colleges and not one individual profession.

I feel that this study has also revealed contradictions with regards to the philosophy or guiding principles of QA programs. By incorporating both the humanist and technical perspectives, health colleges have created programs that directly reflect the training and work environments of health professionals. The contribution of this study is to highlight the unique characteristics of each profession of health care workers and the need for health colleges to create portfolio programs that their members are able to use within their specific practice environments.

I also believe that this study has helped to update adult learning theory on self-directed learning by applying it to a contemporary context. This study presented both the theoretical and conceptual aspects of how self-directed learning occurs within a workplace environment. These findings have increased our understanding of how self-directed learning can be promoted within a mandatory framework. A great deal of the academic writing and research regarding self-directed learning in adults took place in the 1970s. This study highlights that the ideas of Knowles in 1975 and Tough in 1971 (as cited in Merriam & Caffarella, 1999) and other adult theorists including Slusarski (1994) are still applicable several years later and that the concept of the learning contract continues to be relevant today.

The document review portion of this study provides a comprehensive description of 14 portfolio models currently being used in Ontario. The gathering of data from many health regulatory college portfolio models provides comparative data on the various models currently in use and presents a systematic overview of QA portfolio programs. This is the

type of information that the Ministry of Health and Long-Term Care suggested be included in a comprehensive review of QA programs (HPRAC, 2000). The document review protocol that I created and the results that I obtained can serve as valuable tools for both government and regulatory bodies. The presentation of the results using tables and figures allows one to make comparisons and identify the similarities and differences between QA portfolio programs for health professionals in Ontario. Moreover, this study highlighted the need for colleges to regularly evaluate QA programs to gauge their effectiveness and to pursue the development of learning tools and resources for members that facilitate the process of completing a portfolio. These results confirm the recommendations made by HPRAC in 2000 that colleges repeatedly evaluate QA programs and make necessary modifications to maximize their potential.

#### Recommendations for Practice

The examination of portfolio models through the document review in combination with the interviews with college administrators provided an understanding of the effectiveness of the portfolio component of the selected QA programs. The results lead me to make recommendations concerning acknowledging professional uniqueness, respecting distinct needs of diverse professions, facilitating navigation of college websites, identifying members' needs, and a system-wide evaluation of portfolio models.

The one thought that has left the most significant impression on me is the importance of uniqueness. At the beginning of this study, I explored the RHPA mandate that each college create and maintain a QA program, and I highlighted the fact that the RHPA did not provide an exemplar or ideal model to guide the design and implementation of the programs. This study demonstrated that a common cycle of

components has been created, suggesting that a model is present. Whether the commonality of self-diagnosis, learning plan and activities, and self-evaluation was created as a result of the QA guidelines established by the Ministry of Health and Long-Term Care or is a product of collaboration, the similarities are present and deserve attention. Within the broad spectrum of philosophies of learning, health professions, practice settings, and entry-to-practice requirements, all the portfolio programs reviewed for this study exhibit the same cycle of components for portfolio completion, and this finding implies that an ideal portfolio model does exist within this broad spectrum.

Despite the similarities in the sequence of activities within portfolios, I believe that it is important that each profession create QA programs that support the distinctive nature of each health profession. Each profession is different in regards to education, practice environments, and learning needs. Therefore, one model would not suit all of the professions regulated in the province. I believe that although the colleges examined have adopted a similar portfolio model, it is important for colleges to continue to be flexible and construct QA programs based on the needs of their members. It is necessary to address changing technologies, professional demands, and other modifications of the health care system and adjust QA programs accordingly. By following a similar model, health professionals and college administrators are able to share the portfolio and its common elements. At the same time, the differences allow for professional identity and growth while addressing the uniqueness of each profession. Each college has to ensure that the QA program works for both the members and the organization as a regulatory identity.

An additional practical recommendation involves reexamining the ease of navigation of regulatory college websites. The process I used to gather the information for the document review provided me with the opportunity to search for portfolios on college websites. In many cases, the portfolio requirements were easily obtained, and it seemed effortless to collect the information needed to complete a QA portfolio. On the other hand, some websites were difficult to navigate, and the information appeared to be hidden underneath other layers of member requirements. I feel it would be a valuable exercise for health colleges to examine their websites on a regular basis to continually search for methods of making member information readily available. Although the mandate of regulatory colleges is to protect the public, it is still necessary to provide members with the tools they require to fulfill legislated obligations. By creating websites that are easy to navigate, health colleges are fostering an open line of communication with health professionals.

While colleges maintain that they are not in the education business, the administrators clarified that they provide a supporting role by sharing information with professional associations and educational institutions. By collecting common practice questions and issues in health care, they do have the ability to address members' needs. I believe it would be valuable to conduct more frequent and specific needs assessments. Health colleges have a significant role in the province's health system as they are the link between their members and the public while at the same time consulting with the government, educational institutions, and professional associations. Perhaps some colleges need to increase their audit cycles in order to have more data regarding members' learning needs and goals. It may be beneficial for some regulatory bodies to

provide individual feedback and establish a closer relationship with their members in order to understand the needs in the community.

Finally, I believe it would be beneficial to conduct a system-wide evaluation of portfolio models. The scope and limitations of this study do not provide enough information to make generalizations for all health professions. By conducting an evaluation of all portfolios in the province every 5 years, there would be more data to demonstrate how models have changed and evolved in response to the needs of health professionals. By reevaluating design, evaluation, and member support, there would be more information available to gain an understanding of the ability of regulatory colleges to advance quality practice and continued competence through the learning portfolio.

#### Implications for Further Research

This study addressed some of the issues surrounding the effectiveness of the learning portfolio as a tool to promote quality practice and continued competence for health professionals in Ontario. Further research concerning the portfolio component of QA programs could encompass the perspective of other stakeholders, including the Ministry of Health and Long-Term Care that has mandated QA programs, and also health professionals who complete the portfolio to maintain certification with their regulatory bodies. A deeper understanding of QA programs and their effectiveness could be achieved through an examination of the other program components such as the practice assessments and prescriptive learning modules. Although these components were addressed in this study, the focus of the research was the portfolio and did not provide a detailed examination of the other elements of QA programs. This additional research would provide a more comprehensive understanding of quality assurance programs and

how all of the varying components interact with one another to promote quality practice and continued competence for health professionals in Ontario.

Research concerning the portfolio could also include some of the educational concerns raised by this study of QA portfolio programs in Ontario. Through the examination of the various philosophies of learning, it became apparent that both the humanist and technical paradigms are influencing ideologies for health regulatory colleges. As previously discussed, these dual forces may be indicators of the health professionals' skill set, that is, the technical, science-based knowledge combined with the ethical and nurturing qualities required to be a holistic health care practitioner in the complex health care system. The dual forces of the technical and humanist paradigms may also be an indicator of the role of the regulator as a conduit of government initiatives mixed with the responsibility of creating quality assurance programs that members will comply with and actively engage in as adult learners. I believe it would be valuable to conduct further research concerning the effects of the dual philosophies on self-directed learning activities. It would be interesting to ascertain if this philosophic tension has an impact on the process of self-directed learning and if it detracts from an authentic self-directed learning experience in other professions, such as teaching, or in other workplace contexts where self-directed learning is mandated.

Further research is required around the relationship between competence and learning. Although this study explored the link between the two elements with college administrators, I believe that an entire study could be conducted with regards to this linkage. The interview responses revealed that the relationship between the two concepts has different meanings. Moreover, if competence cannot be measured, how can

additional learning provide the vehicle for continued competence? It would be valuable to conduct a study on this relationship and how learning influences continued competence and if that learning can be translated into better services by professionals, including teachers, social workers, and health care workers.

I feel it would be beneficial to the body of knowledge concerning the effectiveness of portfolios as a tool for continued competence and quality practice if the research were undertaken by an administrator of a health regulatory college. As I hold a supportive role in a college, administrators may not have felt that they could disclose all of their experiences with using learning portfolios in a regulatory environment. The limited scope of answers provided by administrators when they were asked to share the challenges they experience when using portfolios demonstrates how positionality of the researcher contributes to the data collected. They may not have been comfortable with sharing all of their views as I hold a subordinate position in the regulatory college hierarchy. If administrators were asked by another administrator, I think that more substantive results within this area would be obtained. I feel that this is an essential component of truly determining the effectiveness of portfolios as a component of QA programs. Without articulating the problems or challenges, some of the issues regarding their effectiveness will not be addressed.

### Conclusion

Health colleges are a valuable component of a complex health care system, as their role is to ensure continued competence among regulated health professionals in Ontario. QA programs were created to meet these needs, but success requires full participation from members, reinforcing the need for programs to support and encourage



adult learning (Austin et al., 2003). QA programs have to meet the diverse needs of health care professionals and regulatory colleges, so it seems appropriate that their effectiveness is dependent upon many different variables. One of the most significant concepts that deserves attention is uniqueness, that is, the need for each regulatory body to maintain programs that meet the requirements of its profession while addressing both legislative demands and individual learning needs. At the beginning of this study I questioned whether equilibrium could be achieved between the competing demands of QA programs. This study has allowed me to discover that equilibrium is possible, but it is more likely that the pendulum swings back and forth and is never completely resting in the middle.

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## Appendix A

## Listing of Health Regulatory Colleges in the Province of Ontario

Retrieved from: <http://regulatedhealthprofessions.on.ca/WHOWEARE/default.asp>

College of Audiologists and Speech-Language Pathologists of Ontario  
College of Chiropodists of Ontario  
College of Chiropractors of Ontario  
College of Dental Hygienists of Ontario  
College of Dental Technologists of Ontario  
Royal College of Dental Surgeons of Ontario  
College of Denturists of Ontario  
College of Dietitians of Ontario  
College of Massage Therapists of Ontario  
College of Medical Laboratory Technologists of Ontario  
College of Medical Radiation Technologists of Ontario  
College of Midwives of Ontario  
College of Nurses of Ontario  
College of Occupational Therapists of Ontario  
College of Opticians of Ontario  
College of Optometrists of Ontario  
Ontario College of Pharmacists  
College of Physicians and Surgeons of Ontario  
College of Physiotherapists of Ontario  
College of Psychologists of Ontario  
College of Respiratory Therapists of Ontario  
Transitional Council of the College of Traditional Chinese Medicine and Acupuncturists of Ontario

(Federation of Health Regulatory Colleges, 2009)

## Appendix B

## Document Review Protocol

Date of Document Review	
Name of College	
Website Address	
Membership Size	
Date of Membership Statistic	
Year of Inception of Program	
Original or Revised?	

**Mandatory/Optional Nature of Portfolio**

Requirement <input type="checkbox"/>	Option <input type="checkbox"/>
Details	

**Portfolio Design**

Components	Present?		Sequence?
	Yes	No	
Self-Diagnosis			
Learning Plan			
Learning Activities			
Self-Evaluation			
Member Profile			
Peer/Other Feedback			

Working Portfolio Characteristics	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

Presentation Portfolio Characteristics	Yes <input type="checkbox"/> No <input type="checkbox"/>
Details	

Minimum Number of Hours Required?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Details	

Use of College Forms Required?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

### Type of Learning and Assessment in Portfolios

Philosophy of Learning Described?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Details	

Use of Self-Directed Learning Evident?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

Use of Self-Assessment Evident?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

Learning Activities Described?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Details	



**Portfolio Evaluation**

Random Selection Process Described?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Details	

Feedback Provided to Members?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

Program Support Available?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

Ongoing Evaluation of Program Evident?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe	

Additional Observations
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## Appendix C



## Clearance Letter from Brock University's Research Ethics Board

**Brock  
University**

Office of Research Services  
Research Ethics Office  
St. Catharines, Ontario, Canada L2S 3A1  
T: 905-688-5550, Ext. 3035/4876 F: 905-688-0748

[www.brocku.ca](http://www.brocku.ca)

DATE: March 30, 2007

FROM: Linda Rose-Krasnor, Chair  
Research Ethics Board (REB)

TO: Denise Paquette-Frenette, Education  
Marianne Thompkins

FILE: 06-254 THOMPkins

TITLE: The Effectiveness of Learning Portfolios: A Study of Quality Assurance Programs of Selected Health  
Regulatory Colleges in Ontario

The Brock University Research Ethics Board has reviewed the above research proposal.

**DECISION: Accepted as clarified.**

This project has received ethics clearance for the period of March 30, 2007 to October 15, 2007 subject to full REB ratification at the Research Ethics Board's next scheduled meeting. The clearance period may be extended upon request. ***The study may now proceed.***

Please note that the Research Ethics Board (REB) requires that you adhere to the protocol as last reviewed and cleared by the REB. During the course of research no deviations from, or changes to, the protocol, recruitment, or consent form may be initiated without prior written clearance from the REB. The Board must provide clearance for any modifications before they can be implemented. If you wish to modify your research project, please refer to <http://www.brocku.ca/researchservices/forms> to complete the appropriate form **Revision or Modification to an Ongoing Application**.

Adverse or unexpected events must be reported to the REB as soon as possible with an indication of how these events affect, in the view of the Principal Investigator, the safety of the participants and the continuation of the protocol.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of any research protocols.

The Tri-Council Policy Statement requires that ongoing research be monitored. A Final Report is required for all projects upon completion of the project. Researchers with projects lasting more than one year are required to submit a Continuing Review Report annually. The Office of Research Services will contact you when this form **Continuing Review/Final Report** is required.

Please quote your REB file number on all future correspondence.

LRK/bb

## Appendix D

## Interview Protocol

Date of Interview:	
Time of Interview:	
Interviewee:	
Position of Interviewee:	
Number of Years in Position:	

**Questions:**

1. Can you give me a brief description of the portfolio component of your QA program?
2. What are the additional components of your QA program? What role does the portfolio play in the overall QA program?
3. Did your organization incorporate a philosophy or guiding principles of adult learning? If so, can you describe it for me?
4. Why was the portfolio chosen as a component of your QA program? Were other forms of self-directed learning considered?
5. Can you talk about the relationship between competence and learning?
6. What do you think are the benefits and challenges of using portfolios as a means to help members learn and ensure continued competence?
7. What maintenance and evaluation measures does your organization use to assess overall effectiveness of your QA program?
8. How many members are selected each year in the audit or random selection process to submit their portfolios?
9. How does your organization identify and respond to the learning needs of your members?
10. What other comments do you have?

11. Do you have any questions for me?

## Appendix E

### Themes from Interviews

Themes
<b>Portfolio Design</b> <ul style="list-style-type: none"> <li>• Sequence of Events</li> <li>• Characteristics</li> <li>• Measurement of Learning</li> <li>• Role of Portfolio</li> </ul>
<b>Types of Learning and Assessment</b> <ul style="list-style-type: none"> <li>• Philosophy of learning</li> <li>• Self-directed learning</li> <li>• Self-assessment</li> <li>• Learning activities</li> </ul>
<b>Other QA Components</b> <ul style="list-style-type: none"> <li>• Prescriptive learning activities</li> <li>• Practice assessments</li> </ul>
<b>Portfolio Evaluation and Member Support</b> <ul style="list-style-type: none"> <li>• Random selection process</li> <li>• Feedback</li> <li>• Program support</li> <li>• Evaluation of portfolio</li> </ul>

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**Benefits**

- Ownership of learning
- Ease of use
- Flexibility
- Enhancing professionalism

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**Challenges**

- Mandatory
- Just-in-time preparation

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**Learning Needs**

- Trends
- Communicate to members
- Partnerships
- Role of regulator

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**Organization Needs**

- Membership co-operation
  - Legitimacy of program implementation
-



## Appendix F

## Permission Letter from R. Stake to Adapt Data Matrix

Date: Fri, 6 Feb 2009 13:43:13 -0600 [06/02/09 02:43:13 PM EST]

From: Bob Stake <stake@uiuc.edu>

To: Marianne Tompkins <mt03hm@badger.ac.brocku.ca>

Subject: Re: Request for Permission to Use Responsive Evaluation Framework

This is to grant my permission for adapting graphics from my paper, The countenance of educational evaluation. Bob Stake

Dear Dr. Stake,

I am a graduate student at Brock University in St. Catharines, Ontario. I have just completed the final draft of my thesis for fulfillment of the degree of Master of Education and will hopefully defend my thesis before the end of April 2009. My study is titled: "The Effectiveness of Learning Portfolios: A Study of Quality assurance Programs of Selected Health Regulatory Colleges in Ontario". Data were collected through interviews with 6 administrators in combination with a review of 14 portfolio models described on college websites. The two data sources were applied to your responsive evaluation framework as a means of identifying issues related to the portfolio's effectiveness. As part of my analysis, I would like to display my results in several adaptations of the data matrix that you outline in your article The countenance of educational evaluation from Teachers College Record (1967). I believe that the data matrix is an effective way of displaying the complexity of portfolio programs and to indicate the gaps between what is intended and the perceptions of college administrators.

In order to adapt the matrix in table or figure format in my thesis, the policy of the Department of Graduate and Undergraduate Studies in Education at Brock University states that I require permission from the author. I have attached a copy of the department policy on use of reproduced materials for your review. I have also attached a copy of my title page and all the pages in my thesis where I have adapted your matrix. May I have your permission to reproduce your data matrix in several adaptations throughout my thesis as a method of displaying the results?

Thank you for considering my request. If you have any questions or require further clarification, please do not hesitate to contact me or my thesis supervisor.

Yours sincerely,

Marianne Tompkins B.A. (Honours)  
(mt03hm@brocku.ca)

Thesis Supervisor: Dr. Denise Paquette-Frenette (denise.paquette@brocku.ca)

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Attachment converted: Macintosh G5 HD:Tompkins, M - Table#182694.pdf (PDF /«IC»)  
(00182694)